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PAPER TRADE JOURNAL

Reg. U. S. Pat. Off.

Vol. CIII OCTOBER 1, 1936 No. 14

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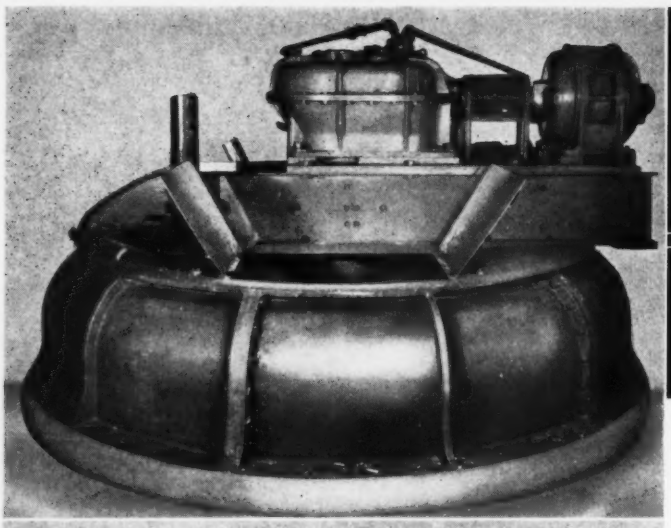

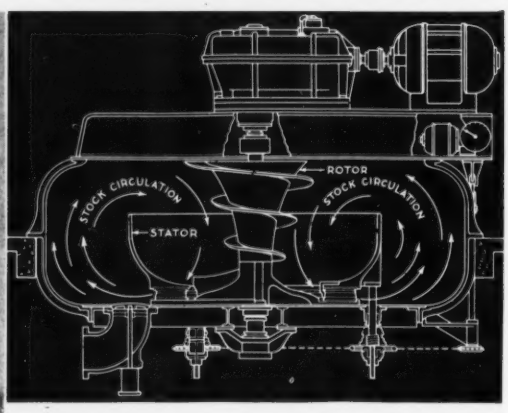

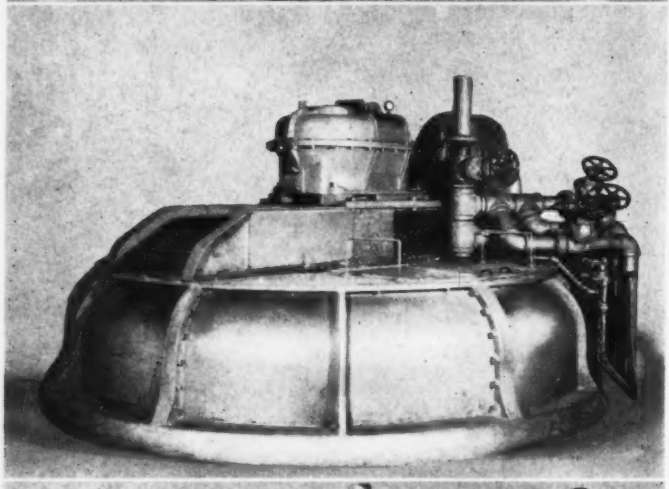

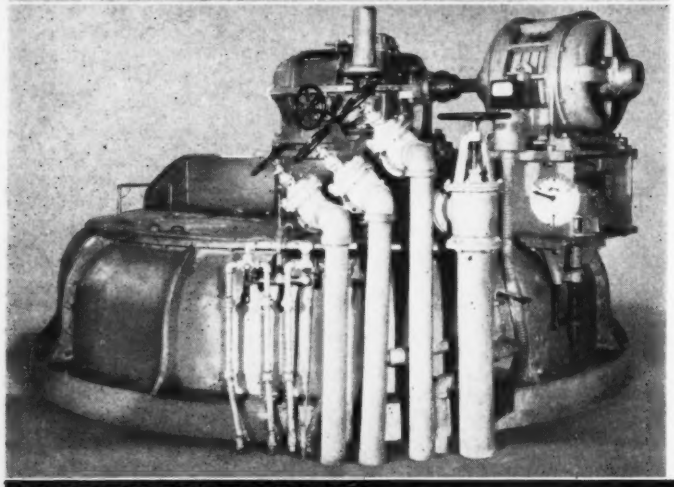

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ESTABLISHED 1872

SIXTY-FIFTH YEAR

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

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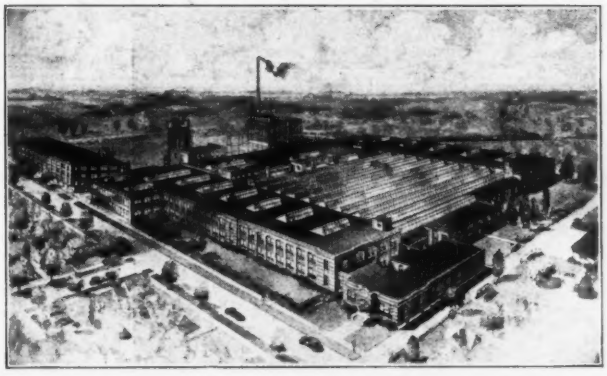

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Paper Chemistry Institute Holds Annual Meeting

Ernst Mahler, Kimberly-Clark Corp., Re-Elected President — George H. Mead, Mead Corp., Elected Board of Trustees — Dr. Wriston, President Lawrence College, States This Has Been Institute's Most Successful Year.

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., September 28, 1936—George H. Mead, president of the Mead Corporation, Chillicothe, Ohio, was elected a member of the board of trustees of the Institute of Paper Chemistry, Appleton, Wis., at the annual meeting of its members at the Institute Friday, September 25.

Mr. Mead is chairman of the Business Advisory Committee of the United States Department of Commerce, is president and director of seven corporations interested in or affiliated with paper manufacturing, and is also chairman of the board of the Abitibi Power and Paper Corporation, Ltd.

Two other trustees whose three-year terms expired were reelected. They are Ernst Mahler, executive vice-president of the Kimberly-Clark Corporation, Neenah, Wis., and Hugh Strange, general manager of the John Strange Paper Company, Menasha, Wis. Mr. Mahler continues as president through his reelection by the trustees, and D. C. Everest, vice-president and general manager of the Marathon Paper Mills Company, Rothschild, Wis., was retained as vice-president. Westbrook Steele, executive secretary, was elected executive director, and Ralph J. Watts was reelected treasurer. John G. Strange, heretofore assistant executive secretary, relieves Dr. Henry M. Wriston, president of Lawrence College, as secretary of the board. Dr. Wriston continues as the director of the Institute.

This has been the Institute's most successful year, according to the annual report submitted by Dr. Wriston at the membership meeting. Numerous gifts, more particularly $50,000, are being added to endowment and scholarships, the report said. Crowded conditions have been met by an additional unit nearly doubling the size of the original building. It allows space for the erection of experimental machinery; it gives additional room for classes, for research cubicles, and generally facilitates both instruction and research.

Staff Augmented

Last year there were 61 members on the staff; this year there are 74, Dr. Watson points out. The most conspicuous appointment was that of Dr. Clarence J. West as editor. Dr. Herbert L. Davis, who formerly divided his time with Lawrence College, has been transferred wholly to the Institute. A new research group has been organized in the field of wood technology under the leadership of Dr. Alan J. Bailey.

There are now 43 students at the Institute, the largest in any year. Membership in the Institute among paper mills also has increased. Eighteen were added during the last year, bringing the total membership to 56 corporations, according to figures quoted by Dr. Wriston.

Appointment has been announced by the Institute of Dr. Ervin F. Kurth, Tuscaloosa, Ala., as research associate. He will begin work October 5. Dr. Kurth holds B.S., M.S. and Ph.D. degrees from the University of Wisconsin. He served on the research staff of the United States Forest Products Laboratory, Madison, Wis., in the chemical laboratory of the J. I. Case Company, Racine, Wis., and up to the present time was supervising chemical research for the Gulf States Paper Company at Tuscaloosa.

News of the Industry

A. F. Kletzien, formerly secretary, comptroller and purchasing agent of the Fox River Paper Company, Appleton, Wis., has accepted a position as treasurer and comptroller of the United Wall Paper Factories, Inc., Jersey City, N. J. He will take over his new duties October 1, and will remain at Jersey City until January 1, when the company's main offices will be moved to Chicago. Mr. Kletzien has resigned a number of offices he held, including membership on the public library board of the city of Appleton, the official board of the Methodist Church of Appleton, and as a director of the Wisconsin Taxpayers' Alliance, Madison, Wis.

Dr. T. A. Pascoe, formerly with the Northwest Paper Company, Cloquet, Minn., has been appointed chief chemist of the Nekoosa-Edwards Paper Company, Port Edwards, Wis. He was with the Northwest company for six years, first as research chemist and later in charge of technical work. Prior to that time he was on the faculty of the University of Minnesota, where he received his degree of Ph.D.

Regular meetings of the Northeastern Wisconsin section of the American Chemical Society will be resumed September 29 at the Institute of Paper Chemistry, Appleton, Wis., according to Dr. Herbert L. Davis, program chairman.

Members who attended the national meeting of the society at Pittsburgh earlier this month will discuss papers presented there.

National Paper Trade Association Convenes

Paper Merchants From All Sections of Country Attend Fall Meeting In Drake Hotel, Chicago — Congressman Hugo Utterback, of Iowa, and Counsel Javits Lead Instructive Discussion of Robinson-Patman Bill.

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., September 28, 1936—Drawn by the marked improvement in business with resultant improved merchandising possibilities and by the wide variation in opinions with respect to the Robinson-Patman bill, executives of leading paper making and distributing concerns the country over flocked to Chicago on September 21 to 23 to participate in the 1936 Fall Convention of the National Paper Trade Association.

Registrations from both coasts and from the North and South both gave proof to the often repeated statement made at the Drake Hotel that the meeting was truly national in scope.

The headline attractions on the noon of September 22, the appearance of Congressman Hugo Utterback of Iowa and Counsel Javits of the association both discussing the Robinson-Patman Bill, provided the specific group meetings with more ammunition for group discussions. Throughout the corridors of the Drake and in the main lobby the discussions centered around business conditions, the Patman legislation and politics.

Mr. Utterback, a member of the House Committee which considered the Robinson-Patman legislation and a co-author of many parts of the Bill, was pronounced in his belief that the legislation would have a remedial effect in all parts of the country. He wasted no time in conveying the impression that business was on trial and that the concentrated effort to protect the weaker interests against the threat of big business would go on and on with unabated energy. The gentleman from Iowa stated that he felt the provisions of the Patman act would hold water constitutionally and would bring about a preservation of all small industry by an elimination of secret rebates and discriminations which he alleged were rapidly driving certain indispensable classifications of American business into oblivion.

It was following the remarks by Mr. Utterback that J. K. Javits presented the legal aspects of the Robinson-Patman Act and opened the meeting into a question box proceedings. It was obvious that the National Paper Trade Association had made more rapid and concise strides in understanding the provisions of the Act and in attempting to cooperate to the fullest extent than many other associations in other lines of business.

Puzzling questions pertaining to differentials because of shipping costs; marking of items of merchandise; publishing of price lists, what constitutes a violation and other matters were paraded before the convention. Much, obviously, is to hinge on the way that the Federal Trade Commissoin is to act on the twenty-odd complaints of violation now appearing before it. And, in the background, was Representative Patman's latest proposal to set up an enforcement commission and also to seek the enactment of legislation keeping the manufacturing interests out of retailing and the retail interests out of manufacturing.

Optimistic Sentiment Apparent

Aside from these two high lights, the convention continued its routine way, though each meeting reflected the great interest in the major topics. Optimism with respect to the future was apparent on every side and the writer found no single paper executive who viewed the immediate future with any degree of alarm.

Specifically, the Convention opened the morning of September 21 with the Survey Committee under W. B. Killhour; the Traffic Committee under R. W. Campbell and the Gummed Tape Committee under C. H. Schorske meeting simultaneously. F. W. McCarty, chairman of the Wrapping Paper Merchandising Committee, presided at a pre-luncheon session.

The Fine Paper Division's Traffic; Survey; Book and Offset and Envelope Committees also met during the first morning along with the Bristol, Blank, Board and Tag Committee under the direction of E. H. Kniep.

The afternoon sessions on September 21 saw the Wrapping Paper Committee reviewing the general situation with Sidney Strauss as chairman while the governing committee of the same group met later in the day with F. B. Tracy, presiding. During the evening the Board of Directors met in their semi-annual session, reviewing the trends within the industry in general.

The Fine Paper Division held its Writing Paper; Groundwood and Newsprint; Box Paper and Governing Committee meetings during the same afternoon, the Newsprint interests in particular, reported to have spent considerable time on the recent favorable developments in the newsprint market.

Pointing out the various postal regulations and their effect on the paper trade, T. Q. Beesley, executive director of the National Council of Business Mail Users, appeared at the Fine Paper Division meetings the afternoon of September 22 and drew a close corollary between the postal laws and the consumption of fine paper. There followed the various reports of the committees following deliberations on the preceding day, each report concluding with a general discussion. J. H. Brewer, Merchandising; P. W. Lesh, Writing Paper; A. M. Miller, Book and Offset; E. H. Kniep, Bristol, Blank, Board and Tag; J. C. Marvin, Groundwood and Newsprint and Bruce Smith, Envelope, were the chairmen leading the discussions.

Open Forum Discussions

One of the most interesting meetings of the Chicago convention was developed by the open forum on market conditions and outlook for the fine paper merchants which concluded the Tuesday program. Here, the industry gave further evidence of its optimism but shared in the opinion of general business in perplexity over the effects of the Patman legislation; social security developments and other matters affecting the pursuit of private business enterprise.

Wednesday morning, September 23, was given over to the general meeting of the Wrapping Paper Division under the supervision of F. B. Tracy, vice president of the Division. Mr. Tracy, in his opening address, summarized the progress made during the past year and stressed the importance of further close coordination of activities within the Division to secure the full benefits of the expected extended improvement in business. Reports on the Wrapping Paper; Tissue and Allied Products; Bag, Gummed Tape and Merchandising Committees were given by the respec-

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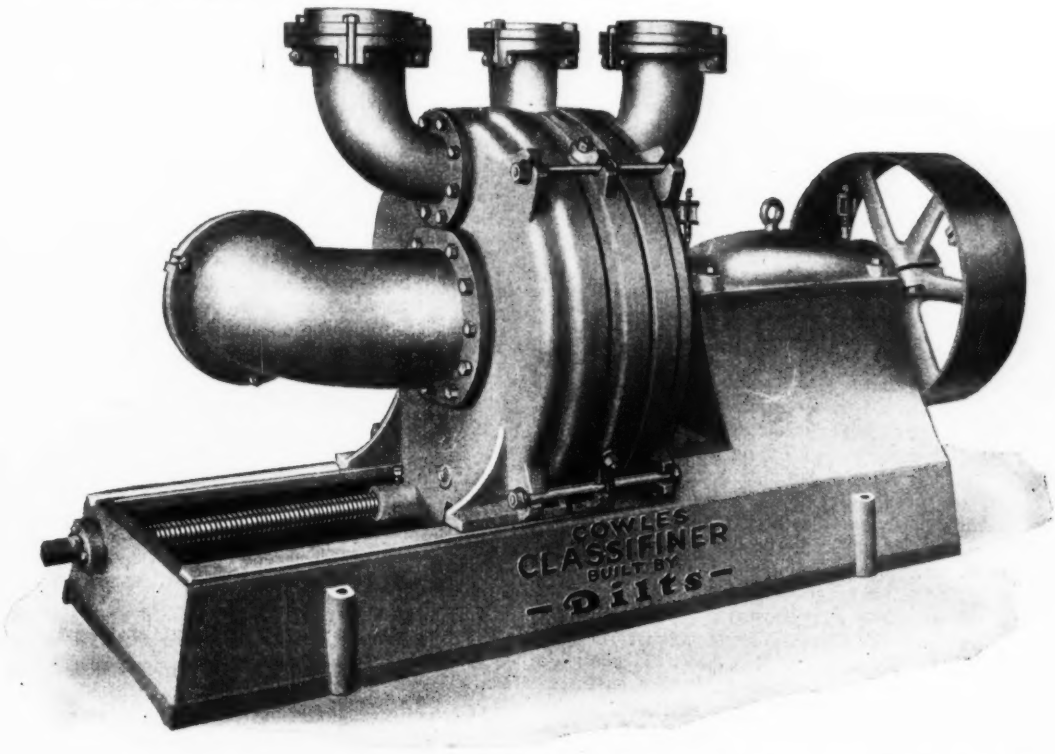

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tive chairmen, Sidney Strauss, F. J. Weissinger, E. P. Magel, C. H. Shorske and F. W. McCarty. An interesting discussion of the use of the popular "Green Book Supplement" terminated the regular discussion and the meeting was then turned into an open forum discussion on price discrimination and price publicity; application of manufacturers freight allowance with relation to cash discount and commissions and the general outlook for the Wrapping Paper Division.

Semi-Annual Meeting

The semi-annual meeting of the National Paper Trade Association, with President O. F. Marquardt presiding, concluded the three day session. Mr. Marquardt outlined the legislative perplexities confronting the industry; pointed out the general improvement; stressed the genuine service given by the Association staff in regard to price discrimination legislation and the general legislative program and urged further individual activity on the part of the association members. The reports of the general secretary, A. H. Chamberlain, and of J. K. Javits, counsel for the association concluded the program.

On Thursday, September 24, 170 members and guests of the Salesmen's Association of the Paper Industry, Midwest Division, journeyed to Olympia Fields to observe the annual golf tournament. The record crowd filled the fairways of the Chicago club and brought together representative paper executives from all parts of the country in a fitting finale to what many present voted the most productive and thought provoking meeting yet held by the National Paper Trade Association.

Albert R. Smith Retires from Keith

TURNERS FALLS, September 29, 1936—Just 50 years to the day from the time he began a papermaking career as office boy of the Keith Paper Company, Albert R. Smith of this town will retire as general manager of that firm. On October 1, Mr. Smith, one of Turners Falls' staunchest citizens, who is widely known throughout the paper trade, will relinquish his active duties with the Keith Paper Company, retaining however his directorship in the company which enjoys an enviable reputation as manufacturer of high grade writing papers, bonds and ledgers.

No appointment to the office of general manager has been made by the directors who comprise Jonathan Bulkley, J. Ogden Bulkley and Albrecht Pagenstecher, III, all of New York City; William D. Russell of Greenfield, Douglas Crocker of Fitchburg, Stanley P. Benton of Pittsfield, Augustus P. Loring, Jr., of Boston and Mr. Smith.

On October 1, 1886, when Mr. Smith, then a young man just turned 20, went to work for the Keith Paper Company, his duties included running errands, sweeping the office floors and filling the kerosene oil lamps. Diligent application to those early tasks was rewarded in time by promotion to bookkeeper and thence to paymaster, clerk of the company, salesman and finally to treasurer and general manager, the latter position having been held by him for nearly 25 years. Wallace B. Marston of this town succeeded Mr. Smith as treasurer at the last annual meeting of the company in May.

In the 50 years that he has been associated with the Keith Paper Company, but three men have been its general managers, Charles N. Burnett and Mr. Smith having served the company for 47 of those years, while James F. Bush headed the concern for three years. Mr. Smith was associated with Mr. Burnett for 22 years. Mr. Burnett was succeeded by Mr. Bush and it was during this period that Mr. Smith left the employ of the company for a short two years during which he was with the Worthy Paper Company in Springfield. He returned to the Keith Paper Company on January 1, 1912, as its treasurer and general manager.

The year Mr. Smith entered the Keith Paper Company's employ saw the death of the founder of the company, John Keith, who had established the business in 1872. The serious fire which wiped out some of the company buildings only a few years after their erection, Mr. Smith remembers watching as a boy from the porch of his home.

Mr. Smith has enjoyed the esteem and respect of the 350 employees which the Keith Paper Company carries on its payroll. At the head of a mill which has felt the business slump he has been sympathetic with the problems of the employees. Their cooperation has enabled the mill to enjoy not only a reputation for the excellence of its products, but recognition among the trade for its neatness and order.

Born in Bradninch, Devonshire, England on Dec. 23, 1864, Mr. Smith came to America at the age of seven with his mother and two brothers. After a year in East Hartford, Conn., the family moved to Turners Falls, the then growing papermaking center of this section.

At the age of 13, Albert Smith went to work in the John Russell Cutlery Company, working as he has told many times since, for 10 hours a day at a salary of $7 a month. After three years with the cutlery, he entered the employ of the Montague Paper Company where he recived a silver dollar a day for pay. Nothing has ever seemed as big as those silver dollars, he recalls now. His work with the Montague Paper Company was in the cotton waste room and later in the finishing department.

Forty-five years ago Mr. Smith married Amy Bowman of this town and they have three children, Donald R., of Turners Falls; Mrs. Thomas F. Cotter of Methuen and Richard D. of Greenfield. The sons are associated with the Keith Paper Company.

Mr. Smith is president of the Crocker Institute for Savings of this town, a director of the First National Bank and Trust Company of Greenfield, a director of the Russell-Harrington Company of Turners Falls and Southbridge, and a trustee of the Farren Memorial Hospital. He served for two years as president of the Boston Paper Association and has served on many important committees in the paper trade.

Government Paper Bids

[FROM OUR REGULAR CORRESPONDENT]

Washington, D. C., September 30, 1936.—The Government Printing Office has received the following bids for 48,000 sheets of 20x24 buff gummed paper; Whitaker Paper Company, at $9.20 per M sheets less 2 per cent; R. P. Andrews Paper Company, $8.99; Mathers-Lamm Paper Company, $8.75 and $9.02; Reese & Reese, Inc., $9.10; Virginia Paper Company, $9.20; Stanford Paper Company, $9.79 less 2 per cent; and J. R. Howarth Paper Company, $11.40.

For 5,000 pounds (73,000 sheets) of white recording chart paper; Whitaker Paper Company, 35.5 cents per pound; R. P. Andrews Paper Company, 33.917 cents; and Virginia Paper Company, 21.5 cents.

Newton Paper Co. Builds Warehouse

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., September 29, 1936—The Newton Paper Company is building a new brick storehouse, one story in height, 50 x 110 feet in size. The building will be used for the storage of raw material.

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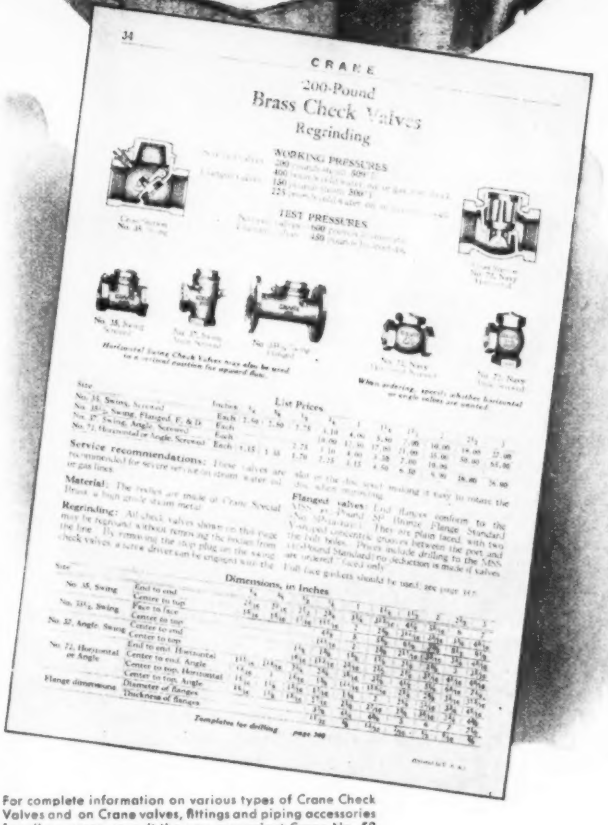
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Exports for August Amounted to 5,151,538 Cwts., Valued at $8,890,078; Compared With 4,417,320 Cwts., Valued at $7,582,315 In Corresponding Period Last Year—Wood Pulp Exportations Also Show Substantial Gain.

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., September 28, 1936—Figures relating to the production of newsprint in Canada in August have already been given. Those relating to exports are just released by the Bureau of Statistics, and they continue the remarkable story of the comeback of the great newsprint manufacturing industry. For the month exports amounted to 5,151,538 cwts., valued at $8,890,078, as compared with 4,417,320 cwts., valued at $7,582,315 in August, 1935. For the five months of the fiscal year to the end of August, exports amounted to 24,527,936 cwts., valued at $42,313,550, as compared with 21,326,940 cwts., valued at $36,311,089 for the similar period of last year. There was also an increase in total wood pulp exportations, these for August amounting to 1,406,424 cwts., valued at $2,829,830, as compared with 1,072,536 cwts., valued at $2,355,879 in August, 1935.

Improvement Stirs Stock Market

As a result of the sustained improvement in newsprint production, newsprint stocks have assumed a prominent place in trading on the Montreal stock market, the group moving along in heavy volume of sales, with firming prices being the rule. With production at all time levels, and presently operating machines producing to the limit of their capacity, the picture presents a striking contrast to that presented in recent years.

The possibility of a sellers' market replacing the long sustained buyers market, appears to be still a debatable topic, in view of the substantial capacity that is not now in use. But as the idle mills are those of the lesser efficiency and therefore higher cost type the trade does not consider that present price levels for the product are not a sufficient inducement to attract much additional effective equipment into operation. A spot market is considered a probability.

Britons See Comeback in Industry

Optimistic utterances on the newsprint outlook were made during the past week by two different observers from Great Britain. Collin Brooks, editor of the *London Sunday Dispatch*, now in Canada, gives his opinion that the world faces a shortage of newsprint within twelve months. Denys Lowson, of the merchant banking house of Dawney, Day and Co., London, who arrived during the week from England for the express purpose of studying among other things the newsprint situation in Canada, said in an interview: "I expect to see newsprint prices rise $5 a ton in the next two years. I also expect a spot market for newsprint next year." England, he stated, is now consuming more newsprint per capita than the United States. The Scandinavian mills are operating at 100 per cent of capacity, and he concluded that newsprint demand is beginning to exceed supply.

In Canada opinion now appears to be coming to the conclusion that if newsprint consumption continues to increase Canadian operators should do fairly well next year on $42.50 a ton newsprint.

Newsprint Reorganizations Imminent

The danger of price-cutting appears to be, for the time being at least, negligible with reorganization of both Price Brothers and Abitibi reported imminent.

Abitibi protective committee has been working for some time on a plan which should be ready for submission soon. With regard to Price Bros., reports have been current that arrangements have been completed for the calling in of the company's bonds—thus disposing of the Duke-Price-Aluminum bid for the company—and leaving the capital structure of the company unchanged. The way has also been cleared for the capital reorganization of Lake St. John, hence in the event of an early clearing-up of the Abitibi and Price Brothers situations, receiverships in the newsprint industry would be a thing of the past and intelligent co-operation on marketing policy facilitated accordingly.

Lumbering Plants Plan Busy Winter

In Quebec a mild building boom and an increased demand for newsprint, lumber and pulp, have resulted in plans for extensive cutting operations in the woods this coming winter. Among the announcements are that the Consolidated Paper Company plans to take a cut of about 15,000,000 feet of lumber, in the Pembroke district, while J. R. Booth Ltd., Ottawa, estimates a cut of 40,000,000 feet in its territory, employing 550 men on the Ontario side of the Ottawa River and 600 on the Quebec side.

The E. B. Eddy Company of Hull, plans a cut of between 60,000 and 75,000 cords of pulpwood and estimates employment will be given to about 600 men.

James Davidson's Sons of Ottawa, plan unusually large operations along the Coulonge River and already have sent 80 men into the bush to prepare for the winter's work.

Other lumber and paper companies operating in the Ottawa Valley planning extensive operations include the Gillies Lumber Company of Braeside, Ont., the Maclaren Lumber Company of Buckingham, Que., and the Canadian International Paper Company.

Logging camps employing more than 2,000 men and calling for an expenditure of some $800,000 will be started in the St. Raymond, Portneuf district it was learned here last night.

The camps will be started by Consolidated Paper Mills Company, Ltd., of Grand'mere and the St. Ann Paper Mill. It is estimated that more than 2,000 men will be employed in different camps on the shores of St. Ann, Cachee and Little Saguenay rivers.

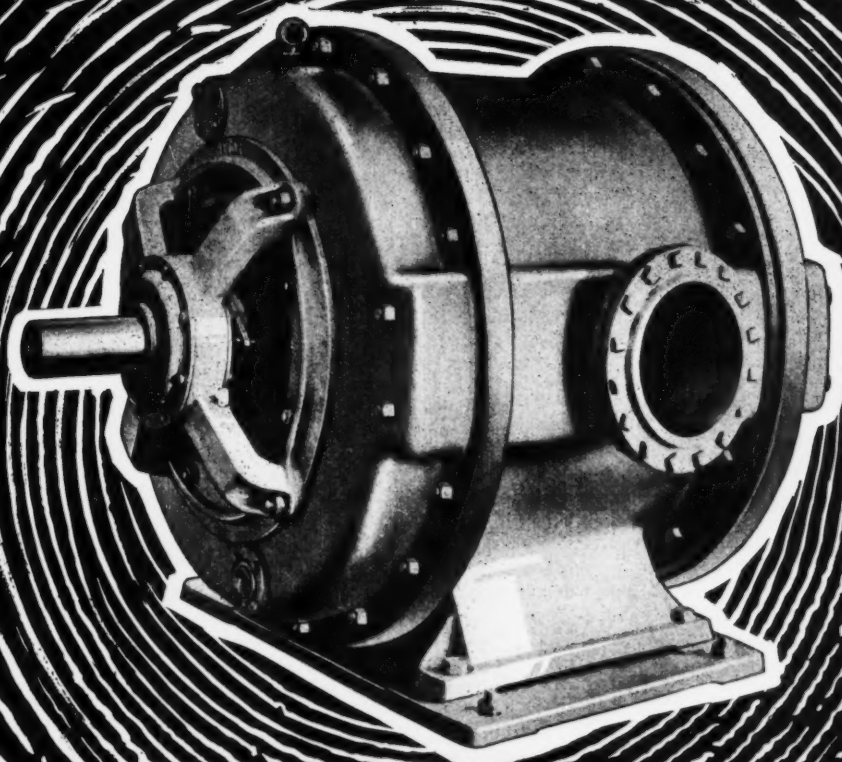
Consolidated Paper has contracted for 70,000 cords of pulpwood and 1,000,000 feet of cherrywood to be cut for export. St. Ann Paper contracts call for 15,000 cords of wood for its mill.

New Plant to be Installed

From St. John, N. B., it is reported that the Port Royal Pulp and Paper Company, Ltd. will start immediately to install a new plant for the manufacture of a fine quality of pulp base, according to an announcement by Manager A. J. Lacroix. The new development will be completed by January 1 and will immediately step up production from 85 tons to 125 tons per day, an increase from 25,500 to approximately 38,000 tons per year, he said.

"In the enlargement of the plant $50,000 will be spent on labor, about $40,000 for building materials and a large

Centralized Paper Mill Economy



NASH PUMPS

A thousand leading mills have found these pumps the answer to vacuum problems. Simple, efficient, and economical. One moving part, rotating without metallic contact. No pistons, no gears. Ball bearings. Increased vacuum range. These pumps set new standards for performance and economy. Ask for Bulletin No. 236.

THE NASH ENGINEERING COMPANY
SOUTH NORWALK, CONNECTICUT, U. S. A.

sum will go into machinery of the most modern type," he added. "When the new unit starts on regular production at the first of the year we will provide regular employment for 60 to 75 additional men and our aggregate annual payroll will be increased from $300,000 to very nearly $400,000."

Powell River Newsprint Raised $2.80 a Ton

A Vancouver dispatch states that Powell River Company, large British Columbia newsprint producer, has advanced the contract price for 1937 delivery of its product in the Southwestern states by $2.80 a ton, as compared with the price increase of $1.50 a ton established by Eastern mills in the United States and Canada. Eastern mills are not expected to be affected by the Powell price announcement, except in so far as some companies may make shipments by water to the Southwestern area.

Westminster Paper Company's Earnings Improve

Westminster Paper Company, Ltd., of New Westminster, B. C., reports net profit for the fiscal year ended July 31, 1936, at $21,825 which compares with $12,968 in previous year. After payment of the usual 4 per cent dividend on the common shares requiring $19,116, there was an addition of $2,709 to surplus, bringing surplus balance to $26,650.

The improvement, J. J. Herb, president, explains in his report to shareholders, was due to a general increase in sales and to drastic economies in manufacturing. Sales totalled $666,305 against $558,845 in previous year.

Japan Increases Pulp Production

Production of chemical and mechanical pulp in Japan during the second quarter of 1936 reached a total of 188,714 tons, an increase of 4.7 per cent over the corresponding quarter in 1935. Both chemical and mechanical pulp contributed to this increase.

Pulp imports during the second quarter amounted to 82,786 tons, representing a decline of 6 per cent as compared with the preceding quarter and 8.7 per cent compared with the corresponding quarter in 1935. United States supplied 45 per cent of the 1936 imports against only 9 per cent for Canada; the corresponding percentages for 1935 were 39 per cent for the United States and 22 per cent for Canada. Imports of pulp from the United States during the period mentioned declined 10 per cent as compared with the first quarter but 5 per cent higher than during the second quarter of 1935.

Figures covering stocks on hand are available only for pulp suitable for the manufacture of rayon, as reported by the Japan Warehousemen's Association to the Department of Commerce and Industry. The figure for May, which is the latest available, is 48,401 short tons, and indicates an all-time high record amount of rayon pulp held in stocks.

No exports of pulp for paper making were made from Japan during the first half of 1936 as against 442 tons during the first half of 1935.

Demolishes Old Harmon Paper Mill

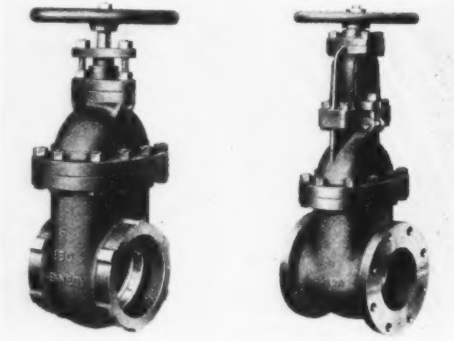
[FROM OUR REGULAR CORRESPONDENT]

BROWNVILLE, N. Y., September 28, 1936—The task of demolishing the old Harmon Paper Mill is now under way. The building is of wooden construction and was erected many years ago. It has not been used for several years and the owners decided to demolish it rather than to continue paying taxes on the property. A fire broke out in the structure early last week during the razing process but was extinguished without any trouble by the local fire department. It is expected that several weeks will be required to demolish the structure.

New Kennedy Valve

A new line of standard iron-body wedge gate valves, which has been developed by The Kennedy Valve Manufacturing Company, has several features which interest engineers and other users of valves.

The metal in these valves is of a particularly dense structure, and on test by an outside laboratory has proved to be more than 50 per cent stronger than ordinary cast iron. To further insure strength and rigidity, the bodies are of oval section with well-rounded corners, the flanges and bolts are heavy, and ribbing is provided at the flanges on the larger flanged-end valves and at the yokes and caps of outside-screw-and-yoke valves. There are no studs at any part of the valves, and all bolts have the nuts above



TWO VIEWS OF THE NEW KENNEDY VALVE

the flanges and with ample room for standard open-end wrenches. In addition to this feasure of convenience, both non-rising stem and outside-screw-and-yoke types have special provisions to facilitate repacking.

An additional feature of special interest is the use of heavy bronze bushings wherever the stem passes through a cast-iron part, as at the yoke cap, packing gland and stuffing box. These bushings prevent corrosion and scoring of the stem which might make operation more difficult and wear out the packing quickly. The screwed-end valves have round ends for best distribution of metal and lugs for convenient application of pipe or chain wrench. Handwheel rims are of oval section and have only five spokes, permitting ample room for the operator's hands even if gloved.

The discs are reinforced with interior posts, are self-draining in any position, and are reversible and interchangeable. Stems have acme standard threads with thread contact surface at least 1½ times the stem diameter. Special provisions in both non-rising stem and outside-screw-and-yoke types keep the stem in perfect alignment at all times.

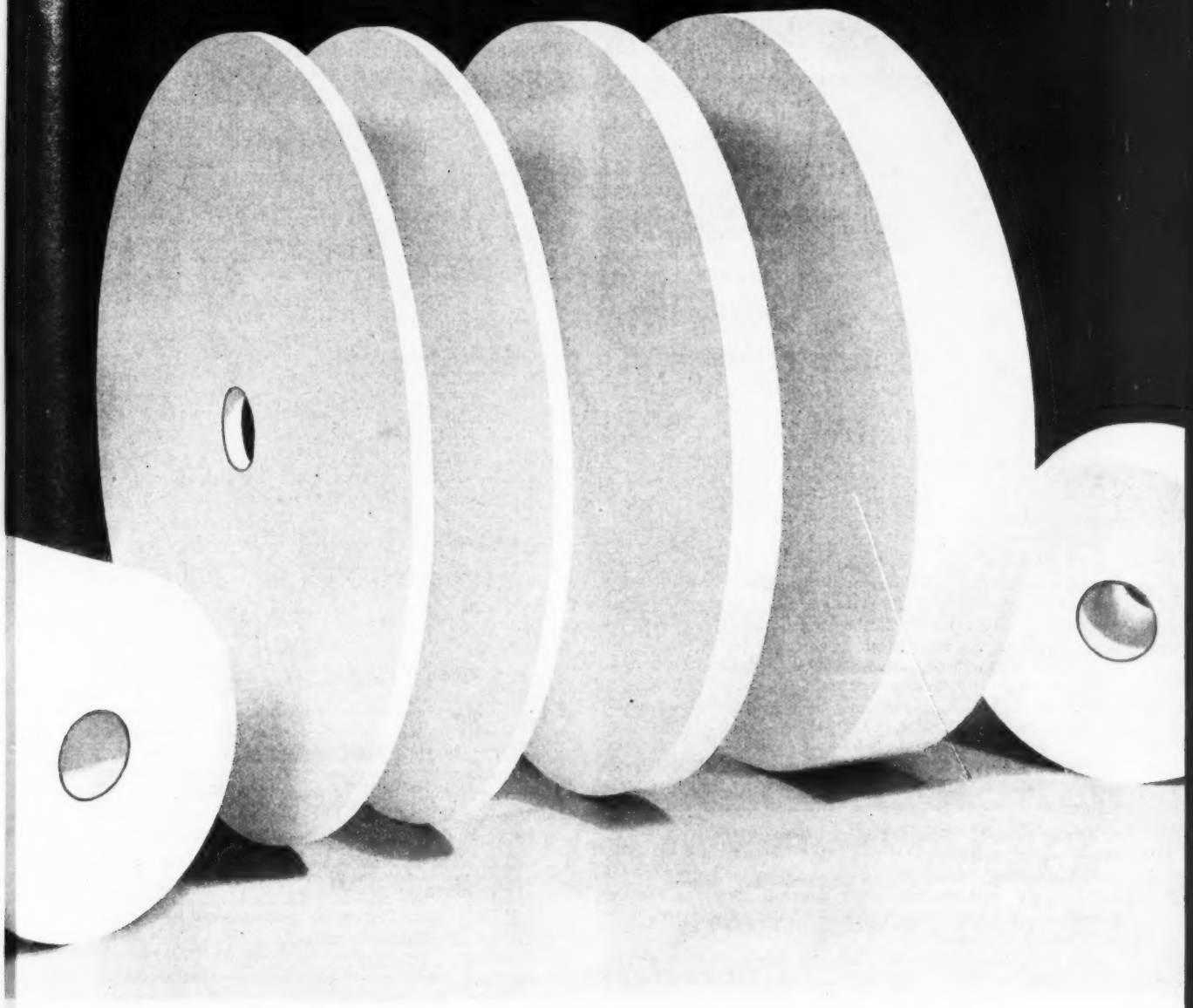
These valves are made in all standard sizes from 1½ inches to 60 inches for steam working pressures of 150 lb. and water working pressures of 200 lb. Complete description, prices and dimensions may be obtained by addressing The Kennedy Valve Manufacturing Company, Elmira, N. Y.

Natural Resins

The properties of natural resins are concisely described in a new booklet just published by the American Cyanamid and Chemical Corporation.

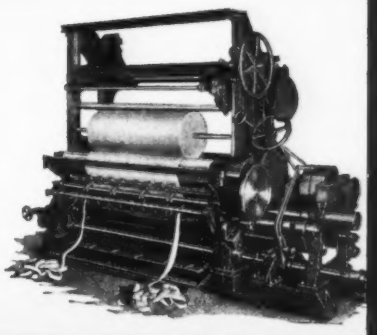
Tables of the solubility of the resins in a considerable number of commercial materials in addition to tables of the origin and properties of natural resins are included.

LANGSTON SLITTERS



AND ROLL WINDERS

THESE thirty-inch diameter rolls of Hammermill Bond were produced on a Langston Type "AA" Slitter. Note the uniform density from core to outside and the clean, square-edged cut on the ¾" as well as the larger rolls. A Shear-Cut is a Clean Cut.



SAMUEL M. LANGSTON COMPANY
CAMDEN, NEW JERSEY

Demand for Paper Well Sustained In Boston

Volume of Sales of Various Grades of Fine Paper Increasing, With Considerable Inquiries Around—Wrapping Paper Orders Fairly Numerous—Box Board More Active—Paper Stock Strong, With Prices Firmer.

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., September 28, 1936—Favorable reports in the Boston wholesale paper market continued last week. Fine paper held up well in volume of sales, with a considerable amount of inquiries. Papers for advertising purposes improved in demand. There was more of a pickup in these than in bonds and ledgers, although these were in greater call. Business in diploma lines was very good. The volume of orders for wrapping paper was at least fair. Box board improved, was in better demand, with more activity among the box manufacturers. It is understood that the box manufacturers look forward to a rather good fall.

The paper stock market was generally strong. Whatever price changes developed were mostly upward, although in some quarters it was intimated that business was better in July and August than it was last week. Old papers continued firm, with an advancing tendency, but values remained the same as far as actual quotations were concerned. Mixed papers, old newspapers and corrugated stock moved about as fast as they were produced.

There was a tendency on the part of packers to hold bagging in anticipation of higher prices, so that not a great deal was sold. The range of prices for foreign manila rope advanced to 2.50 @ 2.80 f. o. b. Boston from 2.40 @ 2.65 f. o. b. Boston. One range given was 2.50 @ 2.65 f. o. b. Boston and another 2.75 to 2.80 f. o. b. Boston. Domestic manila rope rose from a flat 2.50 f. o. b. Boston to 2.75 f. o. b. Boston. There was more demand for both of these grades. Transmission rope went up to 1.25 @ 1.35 from 1.20 @ 1.30 f. o. b. Boston, scrap sisal to 2.00 @ 2.10 from 1.90 @ 2.00 f. o. b. Boston and scrap sisal for shredding to 2.10 @ 2.35 from 2.10 @ 2.35 f. o. b. Boston.

New domestic rags found a ready market, although khaki cuttings declined to .03¾ @ 0.4 from .04 @ .04¼ f. o. b. Boston. Old domestic rags continued steady at the same levels, with roofing stock moving about as fast as produced. Foreign rags remained at the same prices with buyers here taking some.

The twine market was in a healthy condition with profits improving.

News of the Industry

R. Cutler Low, Jr., has become a member of the staff of the fine paper department of the Andrews Paper Company, and will be assistant to Fred Herbolzheimer, head of that department. Arthur Christiansen, formerly in the office with that department, is to devote his entire time to work as outside salesman.

Henry W. Ford, head of the fine paper specialty department of the Andrews Paper Company, who returned Thursday from a few days trip to New York and Philadelphia, found business very good.

T. M. Dix, who recently resigned from the Spaulding & Tewksbury Company, box board dealers, is to operate a paper business from his residence, 38 Liberty street, Everett, Mass. He is to give special attention to new problems of the paper and kindred trades and will handle paper, box boards, felt and fiber. He had been with the Spaulding & Tewksbury Company 36 years and at the time of his resignation was vice-president.

Milton Kahn, head of the Kahn Paper Company, has been appointed chairman of the 1936-37 campaign of the Associated Jewish Philanthropies, it was announced Wednesday evening by Louis Kirstein, president, at a dinner meeting of campaign officers and leaders of trade and professional groups at the Pine Brook Valley Country Club. Mr. Kahn is widely known through his association with Jewish philanthropies. He is a former chairman of the Business Men's Council and campaign vice-chairman. He is a member of the board of trustees of the Associated Jewish Philanthropies and a director of the following constituent societies: Beth Israel Hospital, Jewish Family Welfare Association and Jewish Child Welfare Association.

H. J. Dowd, paper dealer, Cambridge, Mass., residing at Weymouth, Mass., is a candidate for Congress in the National Union for Social Justice Party.

Alfred C. Farrell, of the Dennison Manufacturing Company, Framingham, Mass., is the new President of the Boston Chapter of the National Association of Cost Accountants, which began its 1936-37 season last week with a dinner at the Boston Chamber of Commerce. Robert N. Wallis, also of the Dennison company, was chairman of the meeting to conduct a discussion.

A New England office, staffed for consulting and sales engineering service to those having problems of instrumentation in manufacturing processes, laboratories, power plants or educational institutions, has been opened recently in Boston by Leeds & Northrup Company. Their complete line of measuring, recording and controlling instruments, as well as their electric heat-treating furnaces, will be handled through this office. The address is 422 Chamber of Commerce Building, 80 Federal street, Boston, Mass.

Estate of William Whiting

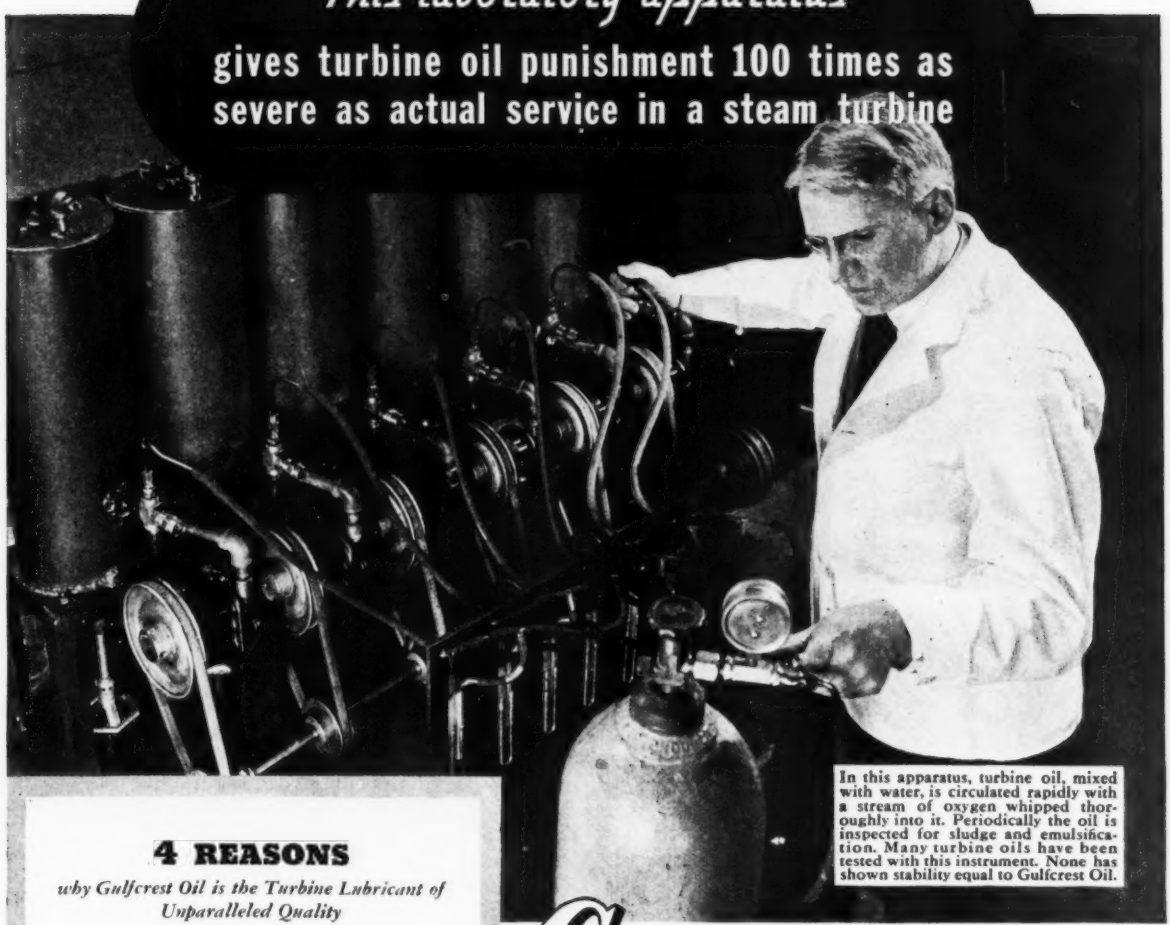
[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., September 29, 1936—The will of the late William F. Whiting of the Whiting Paper Company was filed for probate at Springfield the past week. The entire estate, real and personal, was left to his widow, Mrs. Anna Chapin Whiting and his children, William, Edward C. and Fairfield and his daughter, Mrs. Ruth Whiting Chapin.

Mrs. William F. Whiting is left the family homestead known as the Whiting farm on Northampton street to go to the eldest son William on her death. The will contains the following proviso regarding the disposal: "It is my suggestion that the Whiting farm be owned and kept by my son William after my wife's death and then in turn be given to his son, William, with the hope that it may remain in the direct male line of the Whiting family bearing the Whiting name." A bequest of $1,000 is made to each grandchild. Edward C. Whiting is left the Ely farm, so called on Northampton street. His widow is to occupy the Whiting home on Elm street during her life after which it goes to her sons, Edward C. and Fairfield Whiting.

This laboratory apparatus

gives turbine oil punishment 100 times as severe as actual service in a steam turbine



In this apparatus, turbine oil, mixed with water, is circulated rapidly with a stream of oxygen whipped thoroughly into it. Periodically the oil is inspected for sludge and emulsification. Many turbine oils have been tested with this instrument. None has shown stability equal to Gulfcrest Oil.

4 REASONS

why Gulfcrest Oil is the Turbine Lubricant of Unparalleled Quality

•

1 *Refined by the ALCHLOR Process.* This famous process, patented and owned exclusively by Gulf, is the most thorough and effective method for removing chemically active hydrocarbons as well as the general run of impurities present in all crudes.

2 *Highest resistance to oxidation.* Because this famous ALCHLOR Process synthesizes and rearranges the molecular structure of certain hydrocarbons, resulting in a finished product of greater stability, GULFCREST OIL stands alone in its high resistance to oxidation.

3 *Highest resistance to acidity and sludge.* Because of the elimination of oxidation catalysts in addition to the unparalleled refining power of the Alchlor Process, these oils form less gum and deposits, less emulsion and sludge, when mixed with water over a period of several years continuous operation, than any other turbine oil of which we have record.

4 *Highest kilowatt-hour performance.* Because Alchlor not only makes possible an oil more thoroughly refined and homogeneous but also creates anti-oxidants, these oils have great resistance to deteriorating influences and are longerlived. Less make-up oil is required.

GULFCREST OIL

proves greater stability

LABORATORY TESTS, like that shown above, are one way in which the greater stability of Gulfcrest Oil has been proved.

But still more impressive are the reports from plants where Gulfcrest has been in service for turbine lubrication. They definitely prove that Gulfcrest today is out-performing turbine oils which have been considered, in the past, the best obtainable.

Treatment by the ALCHLOR Process gives Gulfcrest Oil certain important characteristics which cannot be developed by any other refining method in use today. Let Gulfcrest demonstrate its value in your equipment.

GULF OIL CORPORATION—GULF REFINING COMPANY

General Offices: Gulf Building, Pittsburgh, Pa.

Makers of that Good Gulf Gasoline and Gulflube Motor Oil

Paper Industry In Ontario Swings Upward

Newsprint Particularly Is Staging a Comeback, Increasing Orders Causing Mill Operations to be at Highest Level in Years — Underlying Conditions Improving and Make for Optimistic Views on Future of the Industry.

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., September 29, 1936—There is a steady upward swing in the general paper business particularly newsprint, which industry is staging a comeback. Increasing requisitions are causing mill operations to be at the highest level in years but too low prices are still a handicap. Underlying conditions make for optimistic views on the future of the industry. Steadily this great national calling has been overcoming its difficulties, one of which was excess production equipment. During the past week there was pronounced strength in paper bonds on the stock market. Insistent demand appeared almost daily and step by step prices were bid up until they were materially above those of a week ago. Exports of wood, wood products and paper in August were 11.7 per cent up and for the first eight months of 1936 the ascendancy was 19 per cent. The bonds of leading companies rose from two and a half to over six points.

Port Royal Insures Power Supply

The Port Royal Pulp and Paper Company, St. John, N. B., has completed arrangements with the government of New Brunswick to insure an adequate, steady supply of electric power with the city of St. John regarding increased water supply. The company will now start the installation of a new plant for the production of a fine quality of pulp base, says A. J. Lacroix, manager of the company. The new development will be completed early in the new year and will step up production from 85 tons to 125 tons per day. In the enlargement some $50,000 will be spent on labor and $40,000 for building materials while a large sum will go into equipment of the latest type. About 75 employees will be taken on and the payroll increased from $300,000 to nearly $400,000 per annum. The present yearly consumption of pulp wood is 55,000 cords and the increased consumption required for the new undertaking will yield to the pulpwood operators of New Brunswick annually an extra $200,000.

Hinde & Dauch Have Satisfactory Year

The Hinde & Dauch Paper Company of Canada, Toronto, is having a satisfactory year, the volume being about twelve per cent ahead of 1935. The earnings last year covered bond interest over seven times after depreciation and were equivalent to $1.18 a share on the common stock. Maintenance of earnings leads to some expectation of a bonus or an increase in the annual dividend rate of 50 cents a share. Quotations for the company's bonds are slightly above the redemption price.

Dryden Paper Co. To Cover Bond Interest

The financial statement of the Dryden Paper Company, Limited, Dryden, Ont., for the year ending this month is expected to show not only bond interest fully covered but a substantial balance available for depreciation and depletion. The low point in the operations of the Dryden Company was reached in 1932. Improvement since then has been fair and the gain in earnings has been steady and continued into 1936. The company turns out sulphate pulp which is processed into kraft, manila and building papers.

Don Valley Paper Co. Moves Office

The office of the Don Valley Paper Company, Limited, Toronto, has been removed from University avenue to 197 Bay street. The sales of the company during the first nine months of the present year have exceeded those of the corresponding period of 1935 by about ten per cent. The lines of the company include cover papers, tags, colored specialties and blotting paper. During the past year the Don Valley Paper Company spent some fifty thousand dollars on its plant. Two new buildings were put up, the paper machine rebuilt, two new embossing machines installed and a new testing equipment instituted.

Paper Mills in Canada

There are in Canada 95 pulp and paper mills of which 41 are located in Quebec, 36 in Ontario, 6 in British Columbia and the remainder in Nova Scotia, Manitoba and New Brunswick. The amount of pulpwood cut last year showed an increase of 250,000 cords over the previous year reflecting increased manufacture of newsprint and fine papers.

General News of the Industry

T. Linsey Crossley, well known pulp and paper technologist, Toronto, spends his spare time doing water color work and this year entered a picture in the water color landscape section of the amateur hobby department of the Canadian National Exhibition, Toronto, being awarded second place. The picture was of a house down the St. Lawrence river, with an old French woman spinning, sitting on a verandah, with a roadway leading to a village in the background, and the river and Laurentian hills in the distance.

The second machine of the Thunder Bay Paper Company, Limited, Port Arthur, Ont., will, it is expected, go into operation about October 1. Operation of this machine will mean that the groundwood pulp mill at Current River will automatically go into production. The second machine of the Thunder Bay Paper Company has been idle since 1930. There is on hand a supply of wood adequate for present needs and employment will be furnished about seventy-five men in the running of the second machine and the groundwood plant.

An indication of the desire of German paper interests to deal with Canada on a barter basis was shown in a recent visit to Eastern Canadian cities by a group of prominent German industrialists. In the party were Otto Kellermann and Dr. J. V. Heinmann, coal and paper manufacturers of Stettin. Stress is being laid in Germany on the development of business with other countries upon a barter basis, with the establishment of credits and with exports paying for imports, without the expenditure of the nation's capital. Mr. Kellermann is the director of a large paper and chemical business in Stettin, which is the capital of Pomerania, about seventy miles north of Berlin, on the Baltic and a seaport town of importance.

To Furnish Roll Coverings For Crosset

The American Wringer Company, Woonsocket, R. I., reports the receipt of an order for Tensilastic Rubber Roll Coverings from the Crosset Paper Company for the entire equipment in their new plant at Crosset, Ark.

Bring that Tough One to BANTAM!

BECAUSE we manufacture various types of bearings, rather than one standard type, the problems peculiar to the paper industry are solved with the *right bearing application*. Bantam versatility has been responsible for the solution of many socalled "tough" bearing problems.

Probably in this group of "tough" problems we have already solved the bearing problem which is bothering you.

Bantam can furnish the engineering knowledge needed and the *proper* bearings for Press Rolls, Suction Press Rolls, Couch Rolls, Suction Couch Rolls, Dryers, Calender Stacks and other miscellaneous paper mill equipment.

Our engineering suggestions have smoothed out the kinks in many paper mills. Why not take advantage of our experience in your mill?

The responsibility of proving we can help you is up to us. Let us hear from you.

THE BANTAM BALL BEARING CO.

(SUBSIDIARY OF THE TORRINGTON CO.)

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SEATTLE
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In Canada DOMINION ENGINEERING WORKS, LIMITED, MONTREAL

TAKE YOUR TOUGHEST BEARING JOB TO BANTAM

Philadelphia Paper Industry to Celebrate

Paper and Cordage Association Plans Special Meeting and Entertainment to Mark Its Tenth Anniversary—Organization Embraces Manufacturers as Well as Distributors — Membership Grows to One Hundred in 1936

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., September 28, 1936—Notices have been sent out by Mrs. Doris E. Lewis, executive secretary of the Paper Trade Association of Philadelphia, for a meeting of the Wrapping Paper Division to be held in the Hotel Adelphia today, Thursday, October 1 at 6 p. m. This is the first fall meeting of the Wrapping Paper Division and will be preceded by a dinner. T. H. B. Smythe, vice-president in charge of the Wrapping Paper Division, will preside.

The first fall meeting of the Philadelphia Paper and Cordage Association was held on Friday, September 8 at the Adelphia Hotel. At this meeting, plans for the fall and winter activities of the association were thoroughly discussed, and it was decided that as this is the tenth anniversary year of the organization that it would be advisable to hold a special meeting to celebrate the occasion.

It was the consensus of opinion that this celebration should take the form of an open meeting in which the entire paper and cordage industry of metropolitan Philadelphia should be invited. It was also decided that efforts should be made to secure an outstanding speaker for this occasion, preferably a prominent manufacturer who can bring to the whole paper industry an important message regarding the outlook for 1937 business.

E. K. Lay, chairman of the Entertainment Committee, was asked to make plans for such an anniversary gathering and his plans will be announced at the October meeting which will be held on October 16 at the Adelphia Hotel.

The Paper and Cordage Association has grown from a membership in 1926 of seven to one hundred in 1936—the one hundredth member being the Wilson Paper Company of Philadelphia, the oldest paper house in the City of Philadelphia.

In the summer of 1926, Fred Balch, of the Schuylkill Paper Company, called a meeting of a number of paper houses at the Benjamin Franklin Hotel, among whom were the following. Schuylkill Paper Company, E. L. Richards, Knickerbocker Paper Company, Samuel S. Alcorn, Walter Z. Shiber, Fred I. Brower, Putman & Robinson and the Hooper Paper and Twine Company, Inc. The object of this meeting was to form an organization to promote a better relationship among the paper houses of Philadelphia. On Friday, September 10, 1926, another meeting was called at the Poor Richard Club. It was decided the name of the association would be the Wholesale Paper Merchants Association. In two or three years' time it became evident that it would be necessary to include the cordage houses of Philadelphia and the name of the association was accordingly changed to the Wholesale Paper and Cordage Association.

As the years passed, the membership decided on some basic principles which would tend to keep them united. These objects were to foster and promote the welfare and interests of persons engaged in the manufacture, conversion, sale and distribution of paper, cordage and similar products; to maintain a high standard of business ethics among its members; to exchange a friendly relationship among executives, mill representatives and salesmen; to encourage the interchange of business among its members.

During the past two or three years, the association, which is now known as the Philadelphia Paper and Cordage Association, has grown tremendously, and has now adopted a seal—it being the idea that if members used this seal generally it would be a means of letting the paper industry as a whole know that the Philadelphia Paper and Cordage Association is alive and aggressive.

The Philadelphia Paper and Cordage Association differs from all others in that it embraces manufacturers as well as distributors of paper and cordage, and is the only organization of its kind in the country at which the manufacturers and distributors can meet on a common basis and discuss their mutual problems. There is no endeavor on the part of any group to dictate to any other group, and the results obtained are brought about by promoting a pleasant relationship and the interchange of business. Dues for a year's membership are only five dollars.

Meetings are held monthly at the Adelphia Hotel on the third Friday of each month except July and August. There are three major events held during the year, namely: the Shad dinner; the Spring Outing at the Manufacturer's Club and the annual Christmas Party. The Christmas Party is a laudable undertaking, for at that time fifty children, selected by the Salvation Army, are entertained royally by the association.

It is the firm policy of this organization to have as members, companies rather than individuals, so that anyone representing a company that is a member is welcome to join in all activities.

Pennsylvania Salt Report

The Pennsylvania Salt Manufacturing Company, whose earnings have been reflected in rapid price rises of its stock, is deducting anticipated additional tax under the new surplus tax law, rather than avoiding this tax by increasing its dividend, it was revealed today.

In his annual report to stockholders, made public a day or so ago, President Leonard T. Beale said. "The new Federal tax law imposes penalties in the form of increased taxes whenever earnings are not distributed as dividends. Since this penalty varies with the percentage of earnings retained for the entire calendar year, and since this question is still under study by your board of directors and officers, pending final determination, we have taken the conservative position and have deducted from our profits of the past fiscal year the sum of $40,242.50, which would be required for this tax for the first six months of 1936 should we continue the dividend policy that has prevailed for some years past."

The report contains figures, previously announced, showing net earnings of $1,285,645.12 for the year ended June 30, compared with $891,086.27 for the preceding 12-month period. The balance sheet lists current assets of $6,995,169.45, of which $3,405,761.76 is in cash.

SCULPTURED IN METAL BY L. L. BALCOM

FROM stowaway to colonist... captain... general... governor... and world famous discoverer. So rose the fortunes of that most adventurous and daring of conquistadors—Vasco Nuñez de Balboa. But Fortune favors the daring—today as well as in the days of the conquistadors. Never has this been better shown than in the birth and growth of EBG, who first produced Liquid Chlorine in America. Just as the pioneer, Balboa, was first to see the vast Pacific so EBG engineers were first to see the tremendous possibilities of Liquid Chlorine in bleaching and in the purification of water and the treatment of sewage. To each, America now gives the credit due courageous, pioneering effort.

ELECTRO BLEACHING GAS COMPANY
MAIN OFFICE: 60 EAST 42nd STREET, NEW YORK, N. Y.
PLANT: NIAGARA FALLS, N. Y.

FIRST IN THE COUNTRY

EBG Liquid Chlorine

CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Indianapolis, Ind.—The Inland Container Corporation, 700 West Morris street, manufacturer of corrugated boxes and containers, has approved plans for new addition to plant, to be two-story, estimated to cost over $40,000, with equipment. Superstructure will be placed under way at early date. General contract has been awarded to the William P. Jungclaus Company, 825 Massachusetts avenue, Indianapolis. H. C. Krannert is president.

Houston, Tex.—The Champion Paper and Fibre Company, Hamilton, Ohio, has closed negotiations for acquisition of about 21 acres of property near Pierce Junction, approximately 6 miles from city, with salt deposits, and will develop for supply for new pulp mill at Pasadena, in Houston ship channel area, now in course of construction. Equipment will be installed for crude salt production, including mechanical-handling, loading and other equipment. New pulp mill units are expected to be ready for operation early next year, when active production will be under way at salt lands.

Dalton, Mass.—Crane & Co., Inc., manufacturers of fine writing and book papers, card stocks, etc., have approved plans for new addition to mill on Flansburgh avenue, to be three-story, brick and steel type. It is reported to cost close to $100,000, with equipment. General contract for erection has been let to Dr. Herbert Pike, 30 Eagle street, Pittsfield, Mass. Work is scheduled to begin at once.

Fallsburgh, N. Y.—The Fallsburgh Paper Mills, Inc., has been organized with capital of 200 shares of stock, no par value, to operate a local mill for production of paper specialties. New company is represented by Albert B. Nathanson, 60 East 42nd street, New York, N. Y., attorney. New company, it is said, will take over an existing mill in the Fallsburgh district.

Joliet, Ill.—Fire recently damaged a portion of local plant of Prairie State Paper Mills, Inc., manufacturer of wrapping papers and kindred stocks. No official estimate of loss has been announced, but is reported as slight.

Detroit, Mich.—The National Automotive Fibres, Inc., 19925 Hoover avenue, has awarded general contract to the O. W. Burke Company, Fisher Building, city, for new addition to mill, to be one-story, 112 x 160 feet. It will be used primarily for storage and distributing service, and is estimated to cost about $70,000, with equipment.

Hoquiam, Wash.—The Grays Harbor Pulp and Paper Company is concluding arrangements with cities of Hoquiam and Aberdeen for construction of new 52-inch steel pipe line for water supply for increased service at pulp mill at East Hoquiam, where an extensive development program is under way, previously referred to in these columns, to increase present capacity about 50 tons of sulphite pulp per day. The new line will connect with the Lower Wynooche River industrial water system of the municipalities, and is estimated to cost about $275,000. The two cities will also make pipe line extensions up to the point where the company pipe line intake will start. It is proposed to complete the project on or before February 1, 1937, when increased supply will be required.

West Groton, Mass.—The Groton Leatherboard Company, manufacturer of fiber products, has work under way on new addition to mill, comprising a two-story structure, 90 x 200 feet, estimated to cost close to $100,000, including equipment. It is proposed to have unit ready for operation in the fall. The Fiske-Carter Construction Company, 8 Norwich street, Worcester, Mass., is general contractor. H. F. Kimball, 101 Milk street, Boston, Mass., is consulting engineer.

Lockport, N. Y.—The Upson Company, Upson Point, manufacturer of wood pulp board products, wall board, etc., is considering plans for new one-story addition to mill, to be used primarily for storage and distribution. Extensions in power house will be made, including installation of additional boiler equipment. Entire project is reported to cost over $45,000, with equipment.

Fairville, N. B.—The Port Royal Pulp and Paper Company, Ltd., St. John, N. B., is planning construction of new addition to sulphite pulp mill at Fairville, with installation of equipment for large increase in present capacity. Work is scheduled to begin this fall. Entire project is reported to cost over $85,000, including machinery.

New Companies

Kingston, N. Y.—The Neben Paper Corporation has been incorporated with capital of 200 shares of stock, no par value, to manufacture and deal in paper products. Company is represented by Albert B. Nathanson, 60 East 42nd street, New York, N. Y., attorney.

Philadelphia, Pa.—The Supreme Paper Box Company, 3002 North Fifth street, has filed registration of company, to manufacture and deal in paper boxes and containers, with headquarters at Marshall and Berks streets. Max J. Sacks heads the company.

Wilmington, Del.—The Pervel Corporation, care of Corporation Service Company, Delaware Trust Building, Wilmington, has been chartered under Delaware laws with capital of $100,000, to manufacture and deal in paper products of various kinds. C. O. Layman is one of the incorporators.

Consolidated Makes First Water Shipment

MONROE, Mich., September 28, 1936.—The Consolidated Paper Company has just made the first shipment of manufactured goods to leave via water from Monroe's new port. The shipment consisted of 250 tons of test liner and straw paper consigned to Green Bay, Wis., to be used in the manufacture of corrugated box board. The shipment was loaded at the Consolidated docks adjoining the turning basin in the new harbor on the *SS Cleatus Schneider*.

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FUTURE MEETINGS

NEW ENGLAND SECTION, Technical Association of the Pulp and Paper Industry—Third Friday of each month at the Nonotuck Hotel, Holyoke, Mass.

DELAWARE VALLEY SECTION, Technical Association of the Pulp and Paper Industry—Fourth Friday of each month at the Engineers Club, Philadelphia, Pa.

LAKE STATES SECTION, Technical Association of the Pulp and Paper Industry—Second Tuesday of each month at the Conway, Hotel, Appleton, Wis.

KALAMAZOO VALLEY SECTION, Technical Association of the Pulp and Paper Industry—First Thursday of each month at the Park-American Hotel, Kalamazoo, Mich.

WOOD AND PAPER IMPORTS CHECKED BY W. P. A. GROUP

The sixth volume, entitled "Wood and Paper," has just been issued by the United States Tariff Commission in its comprehensive study under the title "Comparative Statistics of Imports into the United States for Consumption." The complete study will be in eleven volumes and is by countries for the calender years 1931 to 1935, inclusive.

The statistics in this volume are given under the subheadings of: manufactured wood, sawmill products, wood manufactures, cork and manufactures, paper base stocks, and paper and manufactures.

Preparation of the volume was completed as a project of the Works Progress Administration employing 136 persons, of whom 125 were taken from the relief rolls, under the direction of the Tariff Commission and with the cooperation of the Department of Commerce, Richmond, Va.

The decoding and tabulation of the statistics contained in the volumes, an undertaking never before attempted, has been hailed by importers, trade associations, chambers of commerce, and students of economics as an interesting and valuable work. For instance, the Oakland, (Cal.) Chamber of Commerce said: "We believe these publications will be very helpful in our trade studies." The Foreign Commerce Department of the Chamber of Commerce of the United States commented: "We find the statistics of considerable value to the Foreign Commerce Department of the National Chamber, especially as we are constantly being called upon for comparative figures of imports by countries during the depression years and 1934 and 1935." And the Duke University Library, at Durham, N. C., requests "That we be put on the mailing list to receive every volume of this valuable study as it appears."

When the project is completed it will have involved the decoding and tabulation of more than 4,500 statistical classifications for each of the years covered and will include every article specified in the Tariff Act of 1930.

An appendix to the volume deals with special information with regard to articles on which rates of duty have been authorized under the existing reciprocal trade agreements with Cuba, Belgium, Haiti and Sweden. Changes in duty by action of the President under Section 336 of the Tariff Act of 1930 are shown in the tabulations for the commodities to which they apply. "Excise taxes" on imports imposed under the revenue acts of 1932, 1934 and 1935 are treated in this study in the same manner as duties.

The statistics include the imports from foreign countries into the customs districts of the continental United States and into Alaska, Hawaii and Puerto Rico but do not include the trade of continental United States with those territories. The Philippine Islands and the Panama Canal Zone are treated as foreign countries. Therefore, entries into continental United States from those areas are included in the import statistics, but imports into those areas from foreign countries are not included. Statistics of the Virgin Islands have been similarly handled although, effective January 1, 1935, the Islands were designated a customs district of the United States.

The work is explained in an introduction to the volume which reads in part: "Prior to 1934, statistics by countries were for 'general imports,' which are all imports entered, whether for immediate consumption or for storage in bonded warehouses. Beginning in 1934, the basis of the statistics of imports was changed from that of 'general imports' to 'imports for consumption,' i.e., free and duty-paid imports, including both entries for immediate consumption and withdrawals from bonded warehouses for consumption; moreover beginning that year, imports were shown in greater detail than formerly. The change in basis and the greater detail of the statistics published in 1934, made in response to public demand, rendered the previous import statistics by countries noncomparable.

"The primary purpose of this study is to present the import data for earlier years on a comparable basis with the detailed and improved classifications instituted in 1934. In order to facilitate comparison of imports for several years and to present the latest available statistics, the published data for 1934 have been incorporated, with minor changes, and the preliminary figures for 1935 have been decoded and are shown here in advance of their regular publication in 'Foreign Commerce and Navigation in the United States.'

"A record of imports for consumption by countries has been kept in code by the Department of Commerce for a number of years; the data for these have been decoded by the Tariff Commission as the need for information in regard to particular commodities has arisen, but no project as comprehensive as this, which involves decoding of all imports for a number of years, has ever before been undertaken."

Business Expansion Possibilities

"A basis for substantial further recovery in business exists," says F. Messner, Editor of Brookmire Bulletins. His forecast was made in a talk before the weekly luncheon of the Salesmen's Association of the Paper Industry at the Hotel Lexington, New York.

According to the Brookmire view, domestic and foreign uncertainties do not appear to be capable of retarding recovery more than temporarily; whereas Capital goods revival, coupled with huge financial resources, should expand business volumes and raise the price level for some time to come.

In the field of construction, for example, it was pointed out that housing shortages are only beginning to stimulate the erection of homes and apartments; that certain industries are being forced to replace obsolete plants or enlarge capacity; and that new industries are opening additional avenues of expansion.

Similarly, the railroads are starting to buy the cars and locomotives needed to handle the volume of traffic or to reduce operating costs; and the Public Utilities are facing the necessity of building greater generating capacity.

Another important point brought out was the effect on prices likely to be exerted by credit expansion, and by the probable spreading of a forward buying psychology once it becomes realized that idle capacity is not as great as commonly believed.

In the long run, therefore, the Brookmire conclusion is that existing forces are putting the nation well on the road to restored prosperity.

Dr. E. O. Merchant, in introducing Mr. Messner, reminded the audience how closely events had borne out the Brookmire forecast made at a similar occasion last year.

German Wood Pulp Stocks Less Than Normal

[FROM OUR REGULAR CORRESPONDENT]

Washington, D. C., September 30, 1936—Stocks of wood pulp on hand in Germany are reported to be less than normal, according to Trade Commissioner R. M. Stephenson at Berlin. Recent demand for pulp in Germany has been exceptionally heavy to supply the large paper requirements for the publication of Government and party documents, newspapers, pamphlets and propaganda of all kinds, as well as for the manufacture of staple fibers for the use of the textile mills and to some extent for the manufacture of explosives. German pulp mills have been working at near capacity to supply this demand. Imports, however, for the first half of the year amounted to 73,130 metric tons and were slightly lower than the corresponding period of 1935. Exports of chemical pulp have also been less, amounting to only 135,564 metric tons in the first 6 months of the current year as against 145,612 tons for the first half of 1935. On the other hand, exports of newsprint have greatly increased—from 49,118 metric tons to 77,639 tons for comparative periods. Exports of wrapping paper are also larger.

Great Eastern Insures Employees

The Great Eastern Packing and Paper Stock Corporation, of Long Island City, N. Y., has recently acquired a group life insurance policy for the protection of 68 employees, each of the latter becoming eligible for life insurance in amounts ranging from $1,000 to $2,500, without any expense to them, the policy being of the non-contributory type.

The Prudential Insurance Company of America issued the policy for a total coverage of $65,000.

Production Ratio Report

These statistics are based upon paper production reports to the American Paper and Pulp Association:

COMPARATIVE MONTHLY SUMMARIES

Month	1936	1935	1934
January	76.1%	65.8%	.....
February	77.9%	70.0%	.....
March	76.0%	70.5%	.....
April	82.3%	70.0%	.....
May	81.6%	69.4%	.....
June	80.7%	72.3%	.....
July (b)	80.0%	67.8%	.....
August	81.6%	70.9%	.....
September (c)	.....	75.0%	59.4%
October	.....	73.6%	64.7%
November	.....	75.3%	61.7%
December (a)	.....	74.3%	62.1%
Year	.....	71.2%	.....

COMPARATIVE WEEKLY SUMMARIES

CURRENT WEEKS, 1936		CORRESPONDING WEEKS, 1935	
*September 5	81.2%	September 7 (c)	76.6%
*September 12 (c)	86.0%	September 14	72.7%
*September 19	84.6%	September 21	76.1%

The following statistics show the number of mills reporting by ratio groups:

	Number of Mills Reporting Current Weeks		
Ratio Limits	Sept. 5, 1936	Sept. 12, 1936	Sept. 19, 1936
0% to 50%	82	78	46
51% to 100%	245	247	187
Total Mills Reporting	327	325	233

* Subject to revision until all reports are received.
These data exclude (a)—Christmas Day, (b)—Fourth of July, (c)—Labor Day.

PAPERBOARD OPERATING RATIOS

According to reports from the National Paperboard Association, per cents of operation, based on "Inch-Hours," were as follows:

Month	1936	1935	1934	Month	1936	1935	1934
January	61%	61%	....	July	69%	59%	....
February	67%	67%	....	August	75%	65%	....
March	68%	67%	....	September	....	69%	62%
April	70%	61%	....	October	....	76%	63%
May	68%	61%	....	November	....	70%	56%
June	68%	65%	....	December	....	60%	(a)53%

Week ending Sept. 5, 1936—78% Week ending Sept. 12, 1936—66%
Week ending Sept. 19, 1936—81%

To Meet at Niagara Falls, Ont., Oct. 24

The New York-Canadian Division of the American Pulp and Paper Mill Superintendents Association will meet at the General Brock Hotel, Niagara Falls, Ont., Saturday, October 24. The business meeting will be called to order at 9 A.M. when a nominating committee will be appointed. Election of officers will follow immediately after the presentation of papers. At this meeting several papers of timely interest will be given.

The International Paper Company, Niagara Falls, N. Y., and the Niagara Wire Weaving Company, Niagara Falls, Ont., will be open to any of those who wish to make mill visits.

Saturday noon there will be a joint luncheon at the Lookout Point Golf and Country Club. Following the luncheon there will be a golf tournament for the men. The ladies may either play golf or play bridge in the club house.

The prize spot on a well rounded program will be the dinner dance at 7 P.M. at the General Brock Hotel. Ed. Buell, of the Niagara Wire Weaving Company, will be the toast master and the speaker of the evening will be announced later. Dress is optional.

Registration will take place Friday evening, October 23.

A splendid program is being provided for the ladies' entertainment. It will include luncheon and bridge at Lookout Point Golf and Country Club. Shopping tour, golf, etc.

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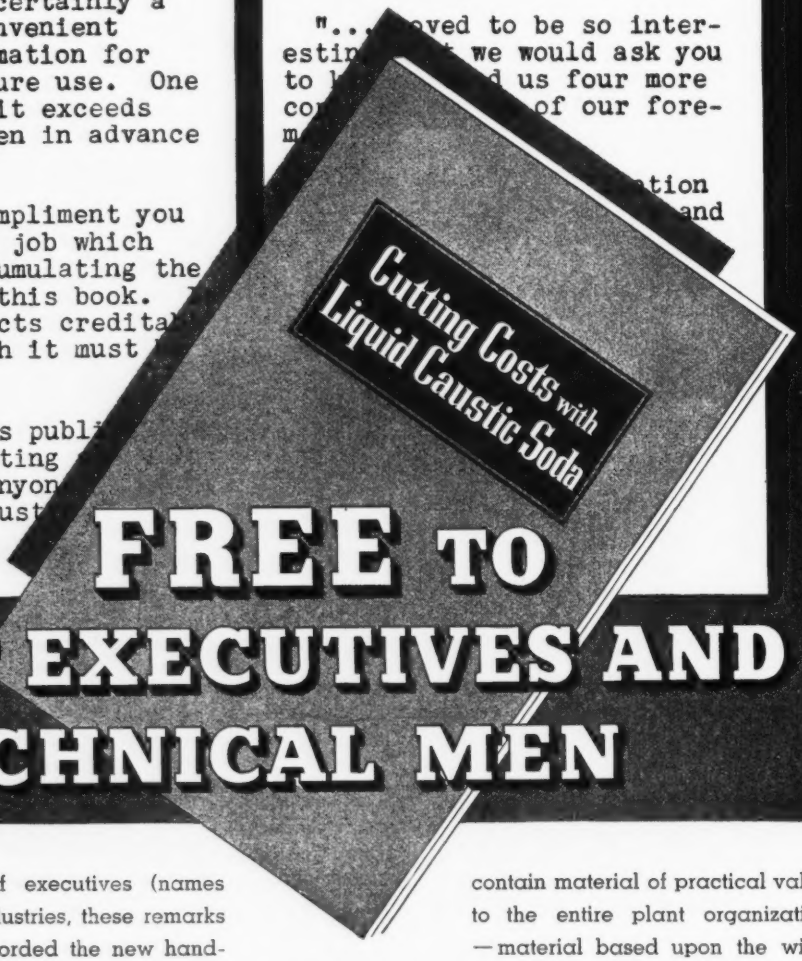

FREE TO PLANT EXECUTIVES AND TECHNICAL MEN

* Quoted from the letters of executives (names on request) in a variety of industries, these remarks typify the warm reception accorded the new handbook, "Cutting Costs with Liquid Caustic Soda." Executives, buyers, chemists and operating men alike are enthusiastic about this new book which they find packed full of useful information for both present and potential users of liquid caustic soda. Its 72 pages contain material of practical value to the entire plant organization — material based upon the wide experience of the Mathieson technical staff and upon data gathered from authoritative reference sources.

This book will be sent upon request to anyone interested in the use of liquid caustic soda. If you have not already received your copy why not send for it today?

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Section of the
Technical Association of the Pulp and Paper Industry
Edited by Ronald G. Macdonald, Secretary

A New Method of Refining Tall Oil*

(Tall Oil II)

By Ralph H. McKee[1] and Helmer L. Blengsli[2]

In a previous paper[3] the historical development of the tall oil industry was briefly described. This paper deals with the refining of crude tall oil in order to produce a valuable raw material for the chemical process industries.

On the average a crude tall oil consists of 88 per cent saponifiable matter and 12 per cent inert constituents of more or less unknown composition. The saponifiable portion of the tall oil consists ordinarily of 50 per cent rosin acids, and 50 per cent of fatty acids of the oleic and linoleic acid series.

This fact obviously classifies the tall oil as a useful material for soap making and as a suitable crude material for such products as mixed resinate-oleates, emulsifying agents, etc.

The reason why tall oil has not as yet been able to gain a position as a recognized chemical commodity is mainly due to two inherently objectionable characteristics of the crude material, namely, the dark color and the highly disagreeable odor.

The dark color of crude tall oil definitely prevents its application in soap making. Even in the major fields for emulsifying agents light color is desirable enough to disqualify the crude tall oil.

The disagreeable odor of the crude material is in itself a sufficient obstacle to commercial success. The mercaptan odor so closely associated with sulphate mills is very pronounced in the crude tall oil, and although the odorous bodies are present in but small quantities their removal has for a long time been a real problem.

The refining methods here described are capable of removing the objectionable colored and odorous constituents of the crude tall oil, thus producing a refined product qualified for applications where now the higher priced fatty acids and rosin are being used.

The present refining methods are based on the observation that the desirable and undesirable constituents of crude tall oil have a pronounced difference in solubility in several selective solvents.

At an early attempt to decolorize crude tall oil in a gasoline solution with activated carbon it was observed that if the tall oilgasoline solution was sufficiently dilute with respect to tall oil a gasoline insoluble precipitate was formed. This precipitate, if carefully dried, appeared as a light gray, apparently amorphous, material.

That this gasoline insoluble constituent of crude tall oil was mainly responsible for the initially dark color appeared clear from the fact that the tall oil recovered from the filtered gasoline solution—gasoline refined tall oil—was considerably lighter in color than the crude material, and upon dissolving the gasoline insoluble precipitate in dilute alkali a very dark brown colored solution was obtained. A similarly prepared solution of gasoline refined tall oil in alkali had a light, slightly gray color only.

The gasoline refined tall oil has a yellow to brown color, depending upon the initial quality of the crude oil, and upon the amount of gasoline-insoluble precipitated out. The color of the carefully dried gasoline-insoluble is light gray, but upon melting it turns black and remains black after cooling.

An Oxidation Product of Rosin Acids

The exact chemical nature of the gasoline-insoluble was not investigated beyond ascertaining its classification as an organic acid. That the gasoline-insoluble originates with the rosin acids in the tall oil, and is an oxidation product of the same, was demonstrated by the following experiments.

Samples of sulphate soap were dried for several hours in a drying oven at 110 to 120 deg. C. with a current of air passing through the oven. The samples thus prepared upon splitting with acid and dissolving the recovered tall oil in gasoline showed a much higher content of gasoline-insoluble, and the color of the gasoline refined tall oil was appreciably improved.

It was thus concluded that the increase in gasoline-insoluble was due to oxidation of the sulphate soap during the drying process. That the gasoline insoluble is a product of oxidation was further demonstrated by subjecting the sulphate soap in solution to the action of air or oxidation agents, or by similarly treating the crude tall oil in gasoline solution. In all cases the gasoline insoluble portion was increased.

Comparison of analyses of gasoline refined tall oil derived from original crude sulphate soap and of gasoline refined tall oil derived from dried sulphate soap revealed that the gasoline-insoluble actually originates with the rosin

* The material of this paper was taken from the dissertation submitted by Helmer L. Bengsli for the degree of doctor of philosophy at Columbia University.

[1] Member TAPPI, Professor of Chemical Engineering, Columbia University, New York, N. Y.

[2] Now with Hercules Powder Company, Wilmington, Del.

[3] Paper Trade J. Sept. 17, 1936.

in the tall oil. Referring to Table I it is apparent that the increase in gasoline-insoluble is followed by a corresponding decrease in gasoline soluble rosin, whereas the fatty acid content has changed very little, if any, during the drying period.

TABLE I
COMPOSITION OF GASOLINE REFINED TALL OIL

	Gasoline refined tall oil from	
	Original Sulphate Soap	Heat treated Soap
	Per cent	Per cent
Rosin	47.2	41.4
Fatty Acids	37.9	46.4
Inert Matter	14.9	12.2
Gasoline-insoluble	6.5	25.9

The gasoline insoluble was separated from the tall oil before analysis.

The analytical data show that oxidation of tall oil, e.g., by subjecting the sulphate soap to a drying process, or otherwise, increased the gasoline insoluble from 6.5 per cent to 25.9 per cent, and that this increase has occurred at the expense of the rosin fraction of the tall oil.

In carrying out the gasoline refining it is merely necessary to make a 10 to 15 per cent solution of crude tall oil in gasoline and permit the gasoline-insoluble to settle out. The clarified tall oil-gasoline solution may be withdrawn and the gasoline removed by distillation, preferably under reduced pressure.

The preoxidation in order to increase the gasoline-insoluble is, if desired, best done by forcing air through the sulphate soap while still in solution, and preferably hot, though the oxidation may be done after the crude tall oil has been dissolved in gasoline.

Further decolorization of tall oil may be accomplished by means of fullers earth, activated carbon, or furfural.

Fullers earth and activated carbon decolorize by absorbing the colored constituents, i.e., oxidized rosin acids, from a tall oil-gasoline solution. As far as decolorization is concerned it is rather immaterial which of the two kinds of active absorbents is used but for convenience in operation carbon is preferred.

In practical operation a 10 to 15 per cent tall oil-gasoline solution is prepared and the gasoline-insoluble separated by settling or filtration. The activated carbon is next thoroughly mixed with the tall oil-gasoline solution, or the carbon is used in form of a filter bed through which the solution is percolated. The gasoline is recovered from the decolorized solution by distillation.

Refining with Furfural

Furfural decolorizes crude tall oil in virtue of its ability to dissolve the gasoline-insoluble selectively, and probably also other colored bodies, while it is a poor solvent for unoxidized rosin acids, fatty acids, and hydro-carbons under certain conditions. The striking solubility of the gasoline-insoluble in furfural may be demonstrated by diluting crude tall oil to a concentration of 10 per cent in gasoline, whereby the gasoline-insoluble comes down in a voluminous precipitate. If furfural is added the precipitate is immediately dissolved in the furfural. As the density of furfural is higher than that of the gasoline-tall oil solution it quickly settles to the bottom, leaving a clear supernatant solution of tall oil in gasoline.

If a mixture of, say, 10 per cent of tall oil in a hydrocarbon, boiling at approximately 116 to 138 deg. C., and 50 volume per cent furfural is heated to 52 deg. C. a homogeneous system is formed. Upon cooling furfural, and with it furfural soluble bodies, separate out.

The effect of oxidation of the crude tall oil upon the result of the furfural treatment is more pronounced than illustrated in Table I for plain gasoline refining. In Table II comparative analyses are given of gasoline refined tall oil, column A; furfural treated, gasoline refined tall oil from original sulphate soap, column B; and furfural treated, gasoline refined tall oil from heat treated (oxidized) sulphate soap, column C.

TABLE II

Sample	A	B	C
	Per cent	Per cent	Per cent
Rosin Acids	47.2	43.6	34.6
Fatty Acids	37.9	42.1	53.2
Inert	14.9	14.3	12.2

It will be seen from this table that the fatty acid content of the furfural treated tall oil is appreciably enriched, and that this enrichment is particularly pronounced in the preoxidized sample. This effect may be valuable for certain applications of the refined product, for instance in soap making.

In practical application the furfural treatment is carried out by dissolving the original or preoxidized crude tall oil in ten times its volume of gasoline and the gasoline-insoluble separated by settling or filtration. To the gasoline solution of tall oil is added 25 to 50 per cent by volume of furfural and the mixture is heated to approximately 52 deg. C. when a homogeneous system is formed. Upon cooling two layers are formed, i.e., a bottom layer of furfural, furfural soluble constituents of the crude tall oil and a small amount of gasoline; a top layer of gasoline, gasoline soluble tall oil, and a small amount of furfural.

The top layer may be washed with water in order to remove dissolved furfural and the gasoline is removed by distillation, preferably under vacuum. The bottom layer is similarly distilled in order to recover the spent furfural.

The color of the refined tall oil is light yellow to light brown. It may be incorporated into soap stock without decoloration, and it forms milky white emulsions.

The complete removal of objectionable odor from the crude tall oil is an incidental feature of the above described refining methods. Regardless of whether the crude tall oil has been simply gasoline refined, i.e., the gasoline-insoluble removed, or further refined with activated carbon, fullers earth, or furfural, the refined oil will appear at some intermediate stage in the form of a 10 to 15 per cent solution in a hydrocarbon or a similar solvent. Upon removing this solvent by distillation the odorous bodies are also removed. If in time the odorous constituents accumulate to an objectionable extent in the spent solvent, which is reused, they may be destroyed by chemical means. The refined tall oil has a mild agreeable odor of fatty acids and rosin.

Brown Air Operated Controllers

The Brown Instrument Company, Philadelphia, Pa., has just published a new catalog on Brown Air Operated Controllers for the control of temperature, pressure, flow and liquid level.

This new catalog (No. 8901) covers the complete line of Brown air operated controllers. It explains in simple non-technical language the principle of operation of Brown air operated controllers and contains, as well, many helpful diagrams, illustrating their simplified construction, the ease with which control units may be interchanged and the ease of "tuning in" for "Throttling Range and Automatic Reset." Catalog No. 8901 also contains complete descriptions of Brown features: universal cases and their drilling dimensions; Brown air-o-motor valves; valve positioners; air-o-motor; and the Brown power cylinder.

A copy of this catalog will be sent promptly to any one interested in air operated controllers by applying to the Brown Instrument Company, Wayne and Roberts avenues, Philadelphia, Pa.

The Coating Mill Chemist

By Norman Clark[1]

Mr. manager or Mr. superintendent of a coating mill, did you ever find a five spot in a discarded pair of trousers? If so, you undoubtedly revived your early belief in Santa Claus. This sensation may be repeated in its pleasurable unexpectedness by calling into your office that too often neglected part of your organization, your chemist, and having an informal chat with him regarding mill problems. Ordinarily this man, although a member of the squad, is kept on the bench, but has the advantage of an intelligent sideline view of the game. He has formed opinions regarding the solution of the ever-present problems which undoubtedly are different from your own. To say the least, there is always an advantage in considering a problem from a different angle than your own and the probability is that in the progress of discussion dissolving light may be shed. The chemist is fundamentally an integral part of the coating mill organization and as such let us consider him in this discussion.

The chemist is, or ought to be, one of the key men of the coating mill organization. See Fig. I for the intimate relation of the key men of the organization. Let us examine the credentials of a chemist as to his right to be included as an integral factor of this group.

First, his relation to the manager. He should be the process eye of the manager. The answer to the questions: Why didn't it work? Does it work? Will it work? To be prepared to answer these questions the chemist must be fortified by an intimate acquaintanceship with the processes of the plant, with the properties of the materials involved and with the factors of their inter-relationship. Back of this he should know paper not only physically and chemically but its constitution and manufacture. To fulfill his obligations to the manager his knowledge of scientific fundamentals should be as broad as possible. Obviously too he should have an understanding of men and the handling of men and to advantageously cooperate with the other key men, should be a good mixer. In short, he must be a potential source of information regarding the technical operation of the processes of the plant and be ready at all times to intelligently discuss them.

Second, through the purchasing agent, he is responsible for the grades of materials bought. These two men should work in close harmony and cooperation. Stock materials of course are ordered more or less automatically from the perpetual inventory but any deviation in the way of new materials, change of grade or change of source of supply, should only be after consultation with the chemist. By an examination of samples and knowing the use to be made of such materials, the chemist is in a position to specify the qualities desired. Thus the purchasing agent is freed of a responsibility that devoid of this cooperation must resolve itself into blind groping.

[1] Member TAPPI. Technical Director, The Continental Color Corp., 3100 West 106th Street, Cleveland, Ohio.

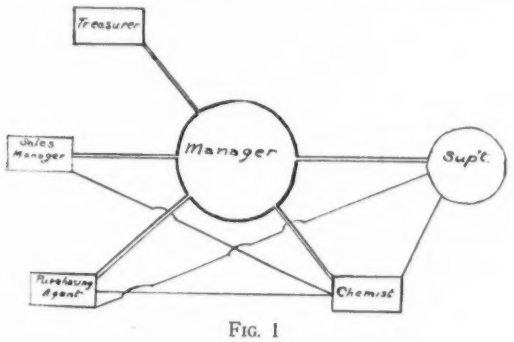

FIG. 1
Key Men

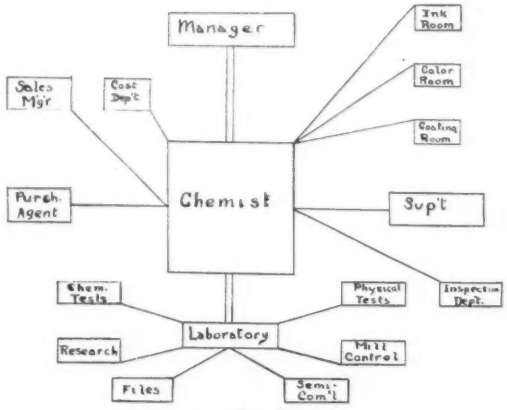

FIG. 2
Functions of the Chemist

Third, the chemist should be in cooperation with the sales manager. This dependability of the sales manager on the chemist lies in the fact that it is to the latter that the sales department must look for particulars regarding customers' or competitors' samples and costs on new papers produced. Further, he looks to the chemist for the answer as to whether or not it is feasible to produce a new paper to match a sample or as the product of a new idea.

Fourth, the chemist ties in very closely with the superintendent. In fact, he ought to be the superintendent's right hand man in the course of mill operation. The coating mill operation is a chemical process practically all the way through. Therefore, the processes of the preparation of materials, the actual color mixing, and the application of color to the paper, while under the supervision of the superintendent, should be subservient to the guidance of the chemist.

By means of this brief summary the conclusion is drawn that the coating mill chemist rightfully belongs among the key men of the organization.

The intimate province of the chemist, of course, is the laboratory. Fortunately, the coating mill laboratory does not require expensive equipment. In fact, most of the requirements may be furnished by the local 5 and 10 cent store or turned out by the mill carpenter or tinsmith. There are certain pieces of apparatus however which it is essential that the laboratory possess in order to present a complete solution of the problems presented. These are: an analytical balance, a solution balance, microscope, accurate up to 100 diameters, a set of mechanical agitators, a standard viscosimeter of the slip type, an elutriator, electric oven, Mullen tester, tint photometer or set of charts for color matching, fadeometer. This list may be extended considerably depending on the character and completeness of the work undertaken.

No matter what the size of the laboratory or chemical

staff, the work of the chemist should be functionized. There are six of these fields of activity and we will consider each of these. Refer to Chart II.

1. Physical Testing

There is a large amount of physical testing to be done, particularly in regard to the raw stock. It is desirable that a room be set apart for this purpose. A room that can be kept under definite control as regards temperature and humidity so as to conduct the tests on various lots of papers under the same conditions in order that the results obtained may be comparable.

Some of these tests are:

Basis weight	Furnish	Formation
Mullen	Thickness	Curl
Tensile strength	Color	Feel
Folding endurance	Dirt	Welts
Ink penetration	Fuzz	
Oil penetration	Finish	

It is not likely that it is necessary to perform all these tests on a single lot of paper but, depending on the use to which the paper is to be put after coating as well as the operations to be performed in the mill, any combination of these tests may be necessary. Besides the paper there is the physical examination of coloring matter, pigments, sizing materials, etc.

2. Chemical Testing

It is impossible to more than indicate the general line of attack among the ramifications of this intricate line of the chemist's atcivity. It concerns itself with the materials received into the mill both as sample and shipments with the interrelation of these materials in the processes and with the requirements of use of the finished material. It further is involved in the setting up of standard specifications. In the carrying out of tests it is preferable to formulate such tests on materials as will indicate their usefulness in the processes and in the case of finished materials as will conform to the actual use of the product. This procedure is in preference to following a given standard set of tests irrespective of their direct application.

3. Research.

This line of work is limited by the initiative of the chemist, amount of time available from routine work, amount of help and the policy of the company. The work may be divided as follows:

(a) Improvements in present processes.
(b) New processes.
(c) Use of new materials.
(d) New papers.
(e) Reduction in cost of present processes.

4. Semi-Commercial

This line of activity is closely aligned to research. While the research is carried on in the laboratory, the semi-commercial phase is undertaken as a step between the laboratory and the actual mill operation. The operation should be of a size to enable the determination of cost data as well as data concerning the particulars of the process. It is desirable that special apparatus be maintained for the purpose such as a cooking kettle for sizes — preferably jacketed, one or two mixers equipped with agitators, a small coating machine, a short rack for coated paper to hang while drying, if much printing is done then a small intaglio press for trial of inks.

5. Mill Control

It is in this phase of his work the chemist comes in close contact with the superintendent. By continual testing and checking he controls the preparation of materials as sizes, waxes, waterproofing materials, pigments, etc. This function is of primary importance because on the thoroughness with which this is done depends the quality of the mill's product. In the color room proper he is of vital importance to the color man, to guide in the mixing of materials that go together without deteriorating effect and to check by means of hand brushouts or sample machines the results of new combinations of color. The hand brushout is of more importance than many give it credit for. By no means is it a panacea for coating room trouble, but viewed in the proper light and performed by a skilled operator, the hand brush out may be of considerable assistance to the color man. (Refer to article on hand brushouts by the author in the Proceedings Technical Association Pulp & Paper Industry 1923-4). In short the chemist should be held directly responsible for the workability of the color as it comes to the machine. If he is to be so held responsible then he should have free control over the processes involved up to that point.

6. Files

This very important adjunct to the laboratory is too often neglected. To be useful it should be easy of access and well indexed. It may include a library of books pertinent to the great variety of subjects which are of interest to the paper chemist, as well as a chemical dictionary and a standard work of general chemistry. It should include a file of clippings from trade journals as well as an index of work done in the laboratory. There should also be included a library of catalogues.

Fig. 2 indicates the complete picture of chemist in the organization both as to his activities and his relationship to other key men. It is believed that if this outline is carried out in both the assumption of responsibility on the part of the chemist and his inclusion among the key men of the organization by the manager, the chemist will become, not as so often is the case at the present time, a necessary evil, but an integral part in the success of the company.

Photoelectric "Colorimeters"

A new Letter Circular, LC473, has been prepared by the Colorimetry Section of the National Bureau of Standards on photoelectric "colorimeters" instruments which depend for their operation on the recently developed "barrier-layer" type of photoelectric cell. These are sold as "colorimeters," "color matchers," color comparators," or "color analyzers," while similar instruments are used to measure transmission, reflectance, opacity, turbidity, and other optical properties.

It is pointed out that the relative speed and simplicity of operation of these instruments has made them deservedly popular. However, it is to be remembered that these devices are valuable in proportion as they give results in accord with visual observations. Their limitations must, therefore, be carefully considered.

Four factors bearing on this subject are discussed: (1) the use of the photoelectric cell to determine values of luminous quantities; (2) its use with spectral filters in abridged spectro-photometry; (3) its use in the various types of "colorimeters"; and (4) miscellaneous factors affecting the reliability of such instruments.

The text is accompanied by numerous footnotes giving references to practically all the publications on which the conclusions are based.

A limited number of copies of this Letter Circular are available to those engaged in the field of color and other optical measurements. Requests should be addressed to the Colorimetry Section, National Bureau of Standards, Washington, D. C.

New England TAPPI Discusses Microscopy

The New England Section of the Technical Association of the Pulp and Paper Industry met at the Nonotuck Hotel, Holyoke, Mass., Friday evening, September 25, 1936. Roger C. Griffin presided as chairman.

New Testing Instruments

The first speaker was Joseph Hammond of Barss, Knobel and Young of Cambridge, Mass., who described a new size tester and a new color measuring instrument. These will be described in detail in an early issue of the PAPER TRADE JOURNAL.

Fiber Identification

The next speaker was John B. Calkin of the Dennison Manufacturing Company, Framingham, Mass., and chairman of the TAPPI Microscopy Committee.

Mr. Calkin announced that his committee was preparing a bibliography on microscopy. This will be issued by the association later this year.

A report was given of the TAPPI Fiber Symposium held at the Institute of Paper Chemistry, Appleton, Wis., last June. The introduction of many new fibers to the paper industry has complicated the procedure of fiber identification. The use of the new so-called "C-stain" has widened the opportunity of identifying fibers.

The Bright stain was found useful only in showing the presence of mechanical pulp. The Lofton-Merritt stain shows only the presence of unbleached sulphite.

The "C-stain" is the best available at the present time, and to get reliable results the investigator must use it a great deal.

The meeting recommended that the Institute of Paper Chemistry be thanked for conducting the fiber symposium, and particularly for the part taken by John Graf.

Miss Lena Kelley, of the American Writing Paper Company, pointed out the importance of making the "C-stain" very carefully. It should be made up according to specific gravity. Small quantities of zinc chloride stocks should be used. The stain should be kept in an amber bottle covered with tape. This should be good for three months.

In reporting results deciduous and coniferous was decided to be preferable to hardwood and softwood.

Details regarding the microscopic design were given. Raw cooked Mitscherlich and well-cooked sulphite fibers with the "C-stain" differ in color.

L. B. Tucker of Crane & Co., Dalton, added that the best way to use the "C-stain" is to make up standard slides and become familiar with the colors. The "C-stain" will give the best fiber analysis of a sheet of paper.

Frederic C. Clark of Skinner & Sherman, gave a report of the testimonial dinner to John Graf. He suggested that all of the notes taken at the symposium be pooled and a master report prepared for those interested. He also suggested that a master set of standard samples be prepared and made available to those who need them.

R. W. McKinley, of Arthur D. Little, Inc., pointed out that the use of the "C-stain" marks the beginning of a new era in fiber identification. A microscopist should be free of color blindness, an experienced microscopist, and able to get consistent, quantitative fiber analyses. The use of c.p. chemicals appears to give good results.

Rosin and alum appear to produce different color reactions. This should be kept in mind when paper sheets are disintegrated.

Mr. Clark stated that the "C-stain" showed a distinction between old and new rag fibers and their degree of cooking.

As a result of the symposium the TAPPI standard for fiber identification has been changed, and will be voted on by the committee.

It has been recommended that no caustic soda be used in preparing the fibers for the slides.

Those Who Attended

There were about 150 present. Those who attended the dinner were:

W. L. Foote, B. F. Perkins & Son, Inc., Holyoke, Mass.; Joseph Hammond, Barss, Knobel & Young, Cambridge, Mass.; Roger C. Griffin, Arthur D. Little, Inc., Cambridge; John B. Calkin, Dennison Manufacturing Company, Framingham; R. G. Macdonald, Secretary of TAPPI, New York, N. Y.; H. N. Lee, Arthur D. Little, Inc., Cambridge; Nathan R Pike, Nulomoline Company, New York, N. Y.; W. P. Richardson, Arthur D. Little, Inc., Cambridge; P. B. Davidson, Mellon Institute, Pittsburgh, Pa.; R. H. Doughty, Fitchburg Paper Company, Fitchburg; W. A. Nivling, Huron Milling Company, Boston; F. H. Knowlton, A. E. Staley Manufacturing Company, Decatur, Ill.; J. Rex Adams, Old Colony Envelope Company, Westfield; D. B. Morris, American Cyanamid Company, Boston; R. D. McCarron, Stein, Hall & Co., New York, N. Y.; H. B. Freeman, American Cyanamid Company, Boston; R. J. Dalton and R. H. Kimball, Geo. O. Jenkins Company, Bridgewater; F. C. Clark, Skinner & Sherman, Boston; Thomas Boyne, James Brown and H. M. Keating, Smith Paper Company, Lee, Mass.; H. W. Richter, Geo. O. Jenkins Company, Bridgewater; Arthur B. Green, Needham, Mass.; Lena E. Kelley, American Writing Paper Company, Holyoke; Lester Crouse, Penick & Ford, Springfield; L. B. Tucker, Crane & Co., Dalton; George Carroll, Helen U. Kiely, M. V. Horgan, John P. Kennedy, Samuel D. Hellberg, J. E. Doyle, Francis Gillespie and Thomas Flaherty, American Writing Paper Company, Holyoke; H. K. Burrill, Geo. O. Jenkins Company, Bridgewater; E. A. Richardson, Smith Paper Co., Lee; Frank R. Filz, Wheelwright Paper Company, Leominster; Chester G. Landes, Fitchburg Paper Company, Fitchburg; Emmett E. White, Wheelwright Paper Company, Leominster; C. W. Damon and G. E. Mongsen, Fitchburg Paper Company, Fitchburg; Leon Tisdale and Everett C. Lary, Wheelwright Paper Company, Leominster; R. J. Proctor, Fitchburg Paper Company, Fitchburg; Robert G. Vaeth, Robert Gair Company, New London; O. F. Neitzke, Bennett, Inc., Boston; James Fitzgerald, Collins Manufacturing Company, N. Wilbraham, Mass.; Walter Hendrick, Byron Weston Paper Company, Dalton; L. K. Burnett, Robert Gair Company, New London; Arthur M. Brooks, Raffold Process Company, Andover; C. L. Reece, William Whiting, Jr., and Charles Davidson, Jr., Whiting Paper Company, Holyoke; J. L. Merrill, Valley Paper Company, Holyoke; John Sbrega, Holyoke; William Glendon, Crane & Company, Dalton; L. N. Smith, American Tissue Mills, South Hadley; William J. Burke, General Dyestuff Corporation, Providence, R. I.; C. L. Loomis, Case Brothers, Manchester, Conn.; J. C. Sanburn, Strathmore Paper Company, W. Springfield; A. L. Perry, Krebs Pigment Company, Boston; Francis Ford, National Blank Book Company, Holyoke; C. F. Young, Rising Paper Company, Housatonic; P. B. Holden, Rising Paper Company, Housatonic; William R. Willets, Titanium Pigment Company; E. O. Reed, Crane & Co., Dalton; O. W. Messner, Robert-

son Paper Box Company, Montville, Conn.; D. J. Macdonald, Arthur D. Little, Inc., Cambridge; R. E. Kilty, A. E. Staley Manufacturing Company, Springfield; A. Sartori, Inland Paper Board Company, Versailles, Conn.; Russell W. McKinley, Arthur D. Little, Inc., Cambridge; Albert Gilmore, H. T. Barker and E. L. Connolly, Bird & Son, Inc., Walpole; J. W. Merrill and E. Krichel, Hurlbut Paper Company, South Lee; Paul Knight, Bird & Son, Inc., Walpole; Norman Bearse, Champion-International Paper Company, Lawrence; Maurice Blew, Strathmore Paper Company, West Springfield; Charles E. Backus, Collins Manufacturing Company, N. Wilbraham; Robert Swaney and J. J. O'Connell, Franklin Paper Company, Holyoke.

New York TAPPI Discusses Paper Machine Operating Efficiencies

The members and friends of the Technical Association of the Pulp and Paper Industry met at the Syracuse Hotel, Syracuse, N. Y., on Saturday, September 26, 1936. John Schuber presided as chairman.

Following a luncheon at the Drumlins Country Club, a golf tournament was held. The prize for low net went to T. H. Trimble, of Hooker Electrochemical Company. R. F. Huntley, of the Oswego Falls Corporation, won the prize for low number of putts. John Rich, of the Newton Falls Paper Company, won the prize for blind handicap. The prizes were donated by the Hooker Electrochemical Company, Solvay Process Company and the Krebs Pigment and Color Company.

The speaker of the evening was John P. Hagenauer, engineer, of the American Paper and Pulp Association who reported on the results of his study of the operating costs of 79 paper machines from the standpoint of power, steam costs, wires, clothing, direct labor, maintenance and expense total. The studies thus far have been largely limited to book, bond and writing papers.

Mr. Hagenauer showed a number of charts showing how the work is being carried on. Although he stated a number of conclusions, these will not be published since they may be changed somewhat considerably.

The next meeting will be held at Watertown, N. Y., on November 7th.

Those present were: F. M. Teren, International Paper Company, Ticonderoga; A. P. Lapp, Stecher Traurig Lithographic Company, Rochester; Walter B. Morehouse, Lawless Brothers Paper Mills, Inc., East Rochester; Everett G. Ham, John A. Manning Paper Company, Troy; John H. Rich and Ronald Hynes, Newton Falls Paper Company, Newton Falls, N. Y.; A. B. Julin, Dexter Sulphite Pulp and Paper Company, Dexter; Sheldon J. Young, National Paper Products Company, Carthage; F. R. Hyatt, Johns-Manville, Oswego; E. W. Gutliph, Bloomer Brothers, Newark, N. J.; J. P. Hagenauer, American Paper and Pulp Association, New York; R. G. Macdonald, TAPPI, New York; C. E. Libby, W. O. Hisey, Arthur J. Barry, New York State College of Forestry, Syracuse; R. F. Huntley, Oswego Falls Corporation, Oswego; C. H. Plantz and Carl Apelgren, Taggert Brothers, Oswego; F. C. Goodwill, Edw. M. Root, Fred Shorken and C. W. Beach, St. Regis Paper Company, Deferiet, N. Y.; T. H. Trimble and Sam I. Anderson, Hooker Electrochemical Company, New York; G. E. Osterheldt and O. L. Lane, Krebs Pigment and Color Company, Newark, N. J.; H. L. Vanderberg, A. E. Staley Manufacturing Company, Decatur, Ill.; Vernon Woodside, Mathieson Alkali Works, New York, N. Y.; D. R. G. Williams, Foxboro Company, Troy; Irving V. Earle, Paper Makers Chemical Company, Albany; W. J. O'Brien and Philip S. Silverman, W. J. O'Brien Company, Syracuse; G. J. Lane, Edgar Brothers, Metuchen, N. J.; J. F. Shuman, Atterbury Brothers, New York; A. L. Ball and R. C. Benner, Carborundum Company, Niagara Falls; F. W. Williams and D. B. Williams, Williams Apparatus Company, Watertown; Frank J. Hoar, Stebbins Engineering and Manufacturing Company, Watertown; Herbert Philip, N. C. Weil, F. G. Calkin, W. R. Steele and John Schuber, Solvay Process Company, Syracuse.

Finnish Ground Wood Market Firm

WASHINGTON, D. C., September 9, 1936—The Finnish ground wood market has continued firm since the first of the year and orders have been placed already for 1937 delivery, according to a report from Erkki I. Kapy, Helsingfors. Since the entire 1936 output of the Finnish mills was disposed of by the end of December, they have not been able to take advantage of the favorable market conditions in this class of pulp.

Board prices failed to improve during the second quarter and indications are that there will be a falling off in demand. During the first half of 1936, 143,500 metric tons of mechanical pulp and 33,200 tons of board were exported, as against 123,100 tons and 31,000 tons respectively, during the corresponding period last year.

The newsprint market has continued fairly active and there are indications of a growing demand for 1937 deliveries. The thinprint market has suffered from German competition which has rendered the maintenance of satisfactory prices impossible. The volume of incoming business for wrapping paper was normal and prices remained firm. The fine paper market continues to be in a poor shape.

Exports of newsprint during the first 6 months of the current year reached a total of 153,600 metric tons compared with 133,300 metric tons during the corresponding 6 months last year. During the same period, wrapping paper exports rose from 25,300 tons to 27,800 tons and total paper exports from 174,100 tons to 214,200 tons.

Lee Paper Co. Entertains Lithographers

KALAMAZOO, Mich., September 26, 1936—The Lee Paper Company was host today for 62 members of the Chicago Lithographers Club.

The party arrived in Kalamazoo Friday night over the Michigan Central in a special car and were quartered at the Park American Hotel. A Dutch lunch was served them and a meeting with entertainment followed. Saturday morning buses transported the group to Vicksburg where they made a tour of the plant of the Lee Paper Company. Following the plant inspection a meeting was held and problems of the industries were discussed through an open forum.

Luncheon in Vicksburg and golf at Gull Lake Country Club completed the program.

New TAPPI Members

The executive committee of the Technical Association of the Pulp and Paper Industry, has announced that the following have been elected to membership:

Maurice Argy, editor of *La Papeterie*, Paris, France.

Kenneth G. Bell, Chemist, Maine Seaboard Paper Company, Bucksport, Me., attended the Massauchsetts Institute of Technology and was formerly chemist for the Dalhousie, N. B., mill of the International Paper Company.

Paul H. Bodenstein, consulting chemist, New York, N. Y., is a 1911 graduate of Pennsylvania State College, and was formerly in charge of chemical research for the Tubize Artificial Silk Company, Hopewell, Va.

James H. Boija, sulphate engineer, Iggesund Bruk A/B, Iggesund, Sweden, attended the technical colleges of Hernosand and Stockholm, and was formerly with Svano, Dynas, Nensjo and Tegefors, A/B.

Walter D. Bowlby, chemist in charge of Paper Lacquer Development, Egyptian Lacquer Manufacturing Company, New York, N. Y., is a 1927 graduate of Dartmouth and was formerly with the Hercules Powder Company, Wilmington, Del.

Enrique Cabanes, director, Nueva Papelera Cubana, Puentes Grandes, Havana, Cuba, was formerly chemist for Papelera Nacional, Marianas, Cuba.

Richard Collins, manager, Wayagamac Division, Consolidated Paper Company, Ltd., Three Rivers, P. Q., is a graduate of the Bury School of Technology, and was formerly engineer for Bentley and Jackson, Bury, England.

Leonard J. Edwards, student, Harvard Graduate School of Business Administration, Cambridge, Mass.

William O. Emenheiser, chemist, Continental Paper and Bag Corporation, York Haven, Pa., is a 1929 graduate of Lebanon Valley College.

Irving R. Gard, Western representative of the Merrick Scale Company, Seattle, Wash., is a 1907 graduate of Ohio State University.

John B. Gough, engineer, Price Bros. & Co., Quebec, P. Q., is a graduate of Liverpool College and was formerly engineer for the Dominion Bridge Company, Lachine, P. Q., Canadian Electro Power Company, Shawinigan Falls, P. Q., Laurentide Company, Ltd., Grand Mere, P. Q., and the Newfoundland Power and Paper Company, Corner Brook, N. F.

Archer E. Griffin, Parlin, N. J., is a 1923 graduate of Brown University, was formerly assistant superintendent, Jessup and Moore, Wilmington, Del., and E. I. du Pont deNemours Corporation, Parlin, N. J.

Olle E. S. Hedbring, chemist, Weyerhaeuser Timber Company, Pulp Division, Everett, Wash., is a 1936 graduate of the University of Washington, and has been employed by the Union Bag and Paper Company and the Shaffer Pulp Company, Tacoma, Wash.

Yu-Tsuan Ku, director of the National Bureau of Industrial Research, Ministry of Industry, Lower Floating Bridge, Nanking, China.

Carlos L. Locsin, superintendent Cane Sugar Factory and Refinery of the Victorias Milling Company, Victorias Occ. Negros, Philippine Islands, is a 1912 graduate of Cornell.

James F. R. Moddrell, director and woodpulp salesman, Churchill & Sim Woodpulp Agency, Ltd., London, England.

Edward H. Nunn, research chemist, Crown-Willamette Paper Company, Camas, Wash. (transfer from associate to active membership).

Don L. Quinn, 609 N. LaSalle street, Chicago, Ill., president, Don L. Quinn Company, was formerly with the Chicago Mill and Lumber Company, Chicago, and the Forest Products Laboratory, Madison, Wis.

Albert E. Sampson, Technical Service Director, Calco Chemical Company, Bound Brook, N. J., is a 1915 graduate of the Massachusetts Institute of Technology, and was formerly salesman for the National Aniline and Chemical Company, Buffalo, N. Y.

Floyd D. Scammon, plant engineer, Webster Mill, International Paper Company, Orono, Maine.

Arthur Shigsby, assistant manager, E. Kempster & Sons, Ltd., paper mill engineers, Bury, England, is a 1934 graduate of Manchester College of Technology.

William T. Snyder, technical representative, American Cyanamid and Chemical Company, Kalamazoo, Mich., is a 1925 graduate of Pratt Institute, and was formerly chemist for the Mallinckrodt Chemical Works, Jersey City, N. J.

Gerrit van Iterson, Jr., director of Laboratory for Technical Botany and Professor, University College of Technology, Delft, Holland.

R. S. von Hazmburg is a graduate of Cornell University, and was until recently director of research, Scott Paper Company, Chester, Pa.

John G. Watson, laboratory assistant, Pacific Mills, Ltd., Ocean Falls, B. C.

Organic Plastics

The modern plastics industry deals chiefly with moldable materials manufactured from organic compounds. Synthetic resins, natural resins, cellulose derivatives and protein substances are the four principal types of these organic plastics. The inorganic molding materials, such as concretes, cements, and ceramics, and also rubber, an organic substance, are not generally included within the scope of the plastic trade as it is known today, inasmuch as the industries utilizing these materials are considerably older and were already individually organized and developed prior to the advent of the newer plastics.

In order to meet a growing demand for information regarding the organic plastics, a circular has been prepared on this subject, by Gordon M. Kline, National Bureau of Standards.

The various organic plastics are discussed from the standpoint of the raw materials required, the chemical reactions involved, the various methods of processing, and the more important applications.

The synthetic resins are subdivided into several chemical types as follows: phenolic-aldehydic, amino-aldehydic, vinyl, hydroxy-carboxylic, indene, organic-polysulphides, and miscellaneous. Some of the more familiar industrial products which are discussed in this section of the circular are "Bakelite," "Catalin," "Beetleware," "Vinylite," "Glyptal," "Thiokol" and "Duprene." Natural resins of animal, vegetable and mineral sources are described. Typical examples of the natural resins from these three sources include shellac, rosin, and asphalt, respectively. The chemistry of the cellulose esters and ethers and cellulose xanthate is outlined. "Celluloid," "Fiberloid," "Plastacele," "Tenite," and "Cellophane" are among the well-known cellulose plastics discussed. The protein plastics considered include those prepared from casein (milk), blood albumin, and soy beans. Selected references are listed at the conclusion of the circular for the convenience of the reader who may be interested in further details regarding the manufacture, properties, and uses of organic plastics. Copies of the circular can be purchased from the Superintendent of Documents, Washington, D. C., for five cents.

Pulp and Paper Industry Literature Review

Abstracts of Articles and Patents Compiled by the Abstracts and Bibliography Committee of the Technical Association of the Pulp and Paper Industry, A. Papineau-Couture, John F. Ohlson, C. E. Peterson and Clarence J. West, Chairman

Copies of United States Patents can be obtained from the United States Patent Office, Washington, D. C., for 10 cents each. Send currency, not stamps.

Cellulose and Lignin

Viscosity of Cellulose. Karl Fabel. Kunstseide 18:5-7 (1936); C. A. 30:2365.—A detailed procedure is described for determining the viscosity of cellulose materials in cuprammonium solution within one hour. Special shaking equipment permits fast dissolving of the cellulose. An Ostwald viscometer is used for measuring the viscosity. C.J.W.

Concerning the Importance of the Ultra-Centrifuge of Svedberg for the Determination of the Molecular Weight of Cellulose. Max Ulmann. Cellulosechemie 16, No. 12:114-18 (Jan. 12, 1936). The author discusses the value of the Svedberg centrifuge in determining the molecular weight of certain proteins with values up to 100,000. The method of the ultra-centrifuge is described and the possibilities of studying cellulose and its derivatives are given.—j.f.o.

The Adsorption of Carbon Dioxide and of Water Vapor by Paper Pulp. Donovan D. J. Salley. Textile Research 5:493-508 (1935).—Adsorption isotherms for carbon dioxide and for water vapor on slightly beaten and well-beaten paper pulp were measured over a range of temperature. A correlation of the results with the known structure of cellulose and with present ideas concerning the effects of the beating process is presented.—A.P.-C.

The Refractivity of Cellulose as a Function of the Degree of Swelling. Madeleine Meyer and A. Frey-Wyssling. Helv.Chim.Acta 18:1428-1435 (1935).—In determining the refractive index of celloids subject to swelling, an immersion method (in which the entire fiber is encased with, but not penetrated by, the immersion liquid) must be used. The imbibition method (*i.e.*, the procedure in which the fiber is soaked for 2 days in mixtures of known refractive index) was found unsuitable. Absolute immersion without penetration cannot be attained, but it can be approximated by shortening the periods of imbibition as much as possible. As the swelling increases, the refractive indexes parellel to the fiber axis and perpendicular to the fiber axis decrease steadily, but very slightly. —A.P.-C.

The Hemicelluloses. II. The Association of Hemicelluloses with Lignin. Arthur G. Norman and Jageshfar Gopal Shrikhande. Biochem. J. 29:2259-2266 (1935).—The removal of polyuronide hemicelluloses from plant materials and woods was not easily effected by dilute sulphite solutions unless the material was given a previous chlorination. Probably the lignin and hemicellulose exist in some type of combination since the extraction of the latter depended on a treatment effecting a solution of the lignin.—A.P.-C.

Adsorption of Caustic Soda by Cellulose. S. M. Neale. J.Phys.Chem. 39:1345 (1935).—Bancroft and Calkin do not emphasize the fact that the concentration of the adsorbed solution removed falls markedly as centifuging proceeds. This is shown by the author from values derived from Bancroft and Calkin's own data, and would follow if the concentration of free hydroxyl ion in the adsorbed solution is determined by the Donnan equation. —A.P.-C.

Concerning the Double Bounds in Nitro Lignin, Nitro Humin and Related Substances. Karl Kurschner. Zellstoff-Faser 33, No. 1:1-14 (January, 1936).—Detailed study of the subjects and with numerous references to the literature.—j.f.o.

X-Ray Studies of Reactions of Cellulose in Non-Aqueous Systems. I. Interaction of Cellulose and Liquid Ammonia. A. J. Barry, F. C. Peterson and J. King. J.Am.Chem.Soc. 58:333-337 (Feb., 1936).—X-ray diffraction data are given for a body, ammonia-cellulose, resulting from the interaction of ramie-cellulose and liquid ammonia and for the body, called cellulose II, obtained when the ammonia is driven out in the absence of water. A space lattice is developed for the ammonia-cellulose; compared with the lattice for normal cellulose, the *b* axis remains unchanged while the *a* axis is increased from 7.9 to 10.05 Angstrom units. The angle between *a* and *c* is decreased from 84° to 53.5°. The space lattice developed for cellulose II gives the following measurements; $a:b:c = 7.87:10.31:10.13$ with the angle $aoc = 58°$. Cellulose II seems to be analogous to hydrate cellulose in structure and in enhanced chemical reactivity. Normal cellulose can be regenerated for both celluloses by proper treatment.—A.P.-C.

Concerning Poplar Wood and Poplar Wood Lignin. B. Rassow and Paul Neumann. Wochbl. Papierfabr. 66, Special Number:25-31 (Dec., 1935).—The glycol process for isolating lignin acts also with deciduous woods and gives a complete decomposition. The glycol lignin is suitable, because of its solubility in various solvents, for the preparation of derivatives and decomposition products. The assumption, that lignin belongs in the class of aromatic compounds finds support in the establishment of isocyclic compounds breaking off. Lignin produced from poplar wood has the following composition, C. 63.23, H 5.73, OCH_3 17.60 and ash 0.24 per cent.—j.f.o.

Lignin and Related Compounds. XXIV. The Formation of Vanillin from Sulphite Waste Liquor. George H. Tomlinson, 2nd, and Harold Hibbert. J.Am.Chem.Soc. 58:345-348 (Feb., 1936).—The formation of vanillin by the action of hot alkalies on sulphite waste liquor was confirmed and a satisfactory method developed for its estimation and quantitative extraction from the reaction mixtures. The effect of variations in the alkaline cooking treatment on vanillin yield was studied. Prolonged heating of the ligninsulphonate solution at moderate temperature did not bring about any appreciable change in the vanillin yield on subsequent alkaline treatment, although at high temperature there resulted a very dark liquor which gave only a small quantity of vanillin. By use of potassium bisulphite it is possible to cover a considerably wider range of liquor concentration than is possible when a calcium base is used. Liquors prepared with low "free" sulphur dioxide contents gave low vanillin yields as compared with those prepared with high "free" sulphur diox-

ide content, when conditions were analogous to those of commercial sulphite pulp the vanillin yield was 6.5 to 7 per cent based on the lignin content of the liquor.—A.P.-C.

Lignin and Related Compounds. XXV. Mechanism of Vanillin Formation from Spruce Ligninsulphonic Acids in Relation to Lignin Structure. George H. Tomlinson, 2nd, and Harold Hibbert. J.AM.CHEM.SOC. 58:348-353 (Feb., 1936).—Carefully purified spruce ligninsulphonic acid fractions yielded vanillin on treatment with hot alkali; this established the presence of the vanillin nucleus in spruce lignin. Methylated spruce ligninsulphonic acids yield veratric alde

The Chemical Nature of Lignin. Walter M. Fuchs. PAPER TRADE. 102, No. 13:33-36 (March 26, 136).—A discussion of the principal existing theories of the chemical composition and formulas of lignin, with an explanation of the relationship of lignin chemistry to commercial pulping processes. Bibliography of 28 references.—A.P.-C.

Lignin and Related Compounds. XXIII. The Preparation and Methylation of Spruce Ligninsulphonic Acids. George H. Tomlinson, 2nd, and Harold Hibbert. J.AM.CHEM.SOC. 58:340-345 (Feb., 1936).—Metallic salts of ligninsulphonic acids were prepared; two cooking schedules were used in order to obtain products of different degrees of sulphonation. A comparison of various suggested methods of fractionation is made. Quinoline precipitates only a portion of the ligninsulphonic acids, a result in agreement with the work of Hägglund, but in contradiction to the later research of Freudenberg. The acids can be methylated without the simultaneous partial loss of sulphur observed by previous investigators by maintaining the temperature and alkali concentrations at a minimum. On a potassium-free basis two samples contained 30 per cent and 31.6 per cent methoxyl. The fractionation experimentation are given in two charts.—A.P.-C.

Absorption of Alkali Solution by Rayon Pulp. Mitsuo Fujii. CELLULOSE IND. (TOKYO) 11:184-192 (1935).—Commercial rayon pulp dried to constant weight at 20°C. was immersed in 17.5 per cent and 19 per cent alkaline solution, and water at 20°C., and the amount absorbed (S in g.) was calculated by the formula $S = (W-P)/P$, in which W and P are the weights of the immersed and original pulp, respectively. The penetration rate and penetration height of alkaline solution and water were determined, and the relation between the absorption and the air space in pulp was discussed. In general, the amount of absorption and the penetration height increase with increasing air space in the original pulp (air space in swollen pulp), and the chemical combination of caustic soda with cellulose is of secondary significance for the absorption. Hence, the quality of pulp cannot be determined by the alkaline absorption only. Hemicellulose in highly swollen pulp can easily be removed. Absorption reaches its maximum within a few min., the steeping time in an industrial operation being therefore decreased considerably by the choice of suitable apparatus and operating conditions.—A.P.-C.

The Structure of Paper Pulp Fibers. William Seifriz and Charles W. Hock. PAPER TRADE. J. 102, No. 19:36-38 (May 7, 1936).—The microdissection of paper pulp fibers shows them to be bundles of fibrils which in turn are made up of much finer secondary fibrils, the diameter of which approches the limit of microscopic visibility. The striated structure seen in the cellulose wall of plant cells and in cotton fibers with both light-field and dark-field illumination is thus shown to be a real property and not due simply to surface irregularities or diffraction phenomena.—A.P.-C.

Determination of Lignin. Peter Klason. Svensk Kem. Tids. 47:298-300 (1935); C. A. 30:2370.—About one gram powdered fat-free wood sample is covered with 50 cc. 66 per cent sulphric acid and stirred occasionally for 24 hours, then diluted with water and filtered through an alundum crucible. When nearly all the sulphuric acid is gone the crucible is covered, placed in a covered vessel containing 50 cc. 0.1 N hydrochloric acid and heated in a steam oven for 12 hours. The crucible is returned to the suction flask and completely washed, dried at 75° C. and for 0.5 hour at 100° C., weighed, ignited and the crucible then washed.—C.J.W.

Ethyl Lignin and Thioglycolic Acid. Gunnar A. Berg and Bror Holmberg. Svensk Kem. Tids. 47:257-265 (1935); C. A. 30:2370.—Ethyl lignin reacting with thioglycolic acid gives a product richer in sulphur when hydrochloric acid is present in the initial step. The former high value of n in the formula $C_{40}H_hO_t(SHCH_2CO_2H)_v$ was 5, which was replaced 3.11 and 4 and is now 5.3. As a preliminary to this study the following thioglycolic acids were prepared from the ethyl ethers, EtOR, where R = $C_6H_5CH_2$, m. 60°; alphaphenylethyl, m. 65; benzhydryl, m. 130°; triphenylmethyl, m. 163.5°.—C.J.W.

Raw Materials

Producing Wood Suitable for Cellulose Manufacture. F. C. Palazzo. Ind. Carta 3, No. 2:60-61 (Feb., 1936).—The cultivation of popular, ailanthus and conifers, such as *Pinus strobus* and *Pinus insignis*, are recommended as suitable quick growing species for Italian climatic conditions.—C.J.W.

Paper Stock from Plant Stems. Hunh-Yuan Chang, Chang-Cho Hung and Yen-Kong Chang. Ind. Center (China) 3:212-214 (1934); C. A. 30:2754.—By the usual procedures paper pulp is obtained from the following plant materials: cotton plant stem, wheat stem, rice straw, Lou-Wei (reed), millet straw, kaoliang stem, maise stem and mulberry bark. C. J. W.

Preliminary Report on the Manufacture of Paper Pulp from Bamboo. Teh-Kuan Shih. Ind. Center (China) 3:247-248, 333-335, 366-370 (1934); C. A. 30:2754.— Young bamboo (4-5 years old) is planted into thin slices and cooked with sodium hydroxide solution under pressure.—C. J. W.

Comparison of Old and New Methods of Paper-pulp Manufacture from Bamboo. Ind. Research (China) 4:35-39 (1935); C. A. 30:2754.—The old-fashioned Chinese methods of paper manufacture in three different districts are described. Lime is used to disintegrate the bamboo. Only young bamboo can be used, and the outside peel is discarded. For these reasons the old method is far inferior to the modern method in which old bamboo can also be used and the whole of the bamboo can be utilized; the new method gives a yield almost twice that of the old.—C. J. W.

Experiments on the Manufacture of Paper from Lou-Wei. Hung-Tuan Chang and Shun-Shu Wang. Ind. Center (China) 3:185-187 (1934); C. A. 30, 2755.—Luo-Wei (a kind of reed) is soaked in cold water for several days, then cooked with a sodium hydroxide with or without sodium sulphate and beaten to a pulp in a hollander. The paper obtained is slightly yellowish and not very strong.—C. J. W.

Modern Methods of Preventing the Blueing of Wood. K. E. Hagström. Finnish Paper and Timber J. 18, no. 6:256-258, 260, 262-263 (March 31, 1936).—The action of the fungus causing the blueing of wood is known to be possible at temperatures of between 2 and 38° C., but it is most favored by a temperatunre of about 25° C and a

moisture content of above 30 per cent. Chemical treatment of wood with such preparation as Lignasan and Dowicide has been found satisfactory and the author describes the method of treatment in detail. He also describes the use of a spray of water over piled logs, keeping the wood constantly wet to prevent blueing and decay.—C. J. W.

New Materials for Paper and Board Manufacture. Anon. Bull. Imp. Inst. 33:421-445 (1935).—Reeds (*Phragmites communis*) from Norfolk when cooked with caustic soda under comparatively mild conditions furnished a good yield of pulp of very satisfactory quality; cooking under milder conditions at atmospheric pressure yielded a product which could be fairly readily broken and beaten and formed into a fairly homogeneous board of good strength. Chique reeds (probably *Phalaris arundinacea* L.) from Norfolk were more readily reduced to pulp than the *Phragmites communis* reeds, but furnished a rather lower yield of pulp; when treated for board making, the yield was about the same as that obtained from *Phragmites communis*, but the board was not quite so strong and rough. Grass (*Hyparrhenia filipendula* Stapf) from Northern Rhodesia furnished a fairly good yield of pulp with only a moderate consumption of soda. The pulp required a rather large amount of bleach to reduce to a satisfactory whiteness; it was composed of fibers of good length which felted well and produced strong paper, and would be very suitable for mixing with short-fibered pulps from African woods. The greater bulrush *(Typha latifolia)* from Australia yields readily to soda treatment, but the yields of pulp are very low owing to the large proportion of pith present and the presence of iron would be objectionable in the better grades of paper; if a large proportion of the pith and iron could be removed economically from the leaves by a preliminary crushing and washing, the yield and quality of the pulp would be considerably improved. A high yield of pulp of suitable quality for board-making could be obtained under mild conditions of treatment. Gelam wood *(Melaleuca leucodendron* Linn.) from Malaya requires fairly severe treatment and gives a rather low yield of short-fibered pulp somewhat similar to poplar pulp but much more difficult to bleach. Mangrove wood *(Rhizophora racemosa)* from Gambia furnished a low yield of short-fibered pulp that was difficult to bleach. Sisal refuse from Tanganyika was not a satisfactory material for the manufacture of boards owing to the large proportion of non-fibrous matter present; the pithy material rendered the pulp very "wet" and difficult to handle, and produced shrinkage and objectionable warping and buckling of the finished boards. The pulp yields were low. Jarrah bark *(Eucalyptus marginata)* from Western Australia can furnish a fairly good yield of coarse-fibered pulp of very satisfactory strength, which could be utilized in the manufacture of boards.—A. P.-C.

Comparative Pulpwood Growing Capacities of Southeast Georgia and the Fog Belt on the North Pacific Coast. David E. Hervey. Paper Trade J. 102, No. 14, 42-43 (April 2, 1936).—A comparison of the rates of growth of pulpwood in one definite area within each of these regions, from which it is concluded that the future logging acreage for unit cut will be approximately 4.2 times as great in southeast Georgia.—A.P.-C.

The Early History of Fiber Structure. James Strachan. Paper Maker. 91:TS33-34 (March, 1936).—A brief review—A.P.-C.

Wood Measurements and Their Evaluation. Martin L. Griffin. Paper Mill 58, No. 36:9, 11 (Sept. 7, 1935). A brief general discussion of the problem.—A.P.-C.

Miscellaneous

Inspection and Maintenance. G. J. Morrissette. Pulp Paper Can. 36:681-687 (Dec., 1935).—A discussion of factors that affect the important problem of keeping the mill in good operating condition.—A. P.-C.

United States Patents on Paper Making. Fourth Quarter, 1935. Clarence J. West. Paper Trade J. 102, No. 5:31-33 (Jan. 30, 1936).—A list in numerical sequence of patents relating to pulp and paper making issued at Washington during Oct., Nov. and Dec., 1935.—A. P.-C.

United States Patents on Paper Making. Third Quarter, 1935. Clarence J. West. Paper Trade J. 101, No. 17:39-41 (Oct. 24, 1935).—A list in numerical sequence of patents relating to pulp and paper making issued at Washington during July, Aug. and Sept., 1935.—A. P.-C.

Refuse Disposal. W. T. Bennett. Pulp Paper Can. 36:489-90 (Sept., 1935).—A description of the wood refuse disposal plant at the mill of Canadian International Paper Co., Gatineau, Que.—A. P.-C.

Pulping Treatment and Fiber Properties. Geo. A. Richter. Paper Trade J. 101, No. 19:36-40 (Nov. 7, 1935).—A review of the important properties of sulphite, soda and kraft pulps and the improvements that have been made in these pulps in recent years. The contributions of new paper properties that have been made by new pulps are outlined and a prediction is made that before long paper makers will have at their disposal pulps that will possess strength, tear and fold endurance 50% in excess of values that can now be realized with the best present-day products. The methods of obtaining such a vast improvement are already known.—A. P.-C.

The Wetting of Paper. G. M. Papeterie 57:1014-1021, 1062-1066, 1117-1121 (Nov. 25, Dec. 10, 25, 1935).—A discussion of the phenomena taking place in the wetting of paper, explaining the reasons why good results are very generally obtained in the case of all-rag papers while they very frequently are irregular or poor with wood pulp papers. It is suggested that uniform and readily controllable results can be obtained spraying both sides of the sheet by means of "pistols", using steam instead of compressed air, so that the water is at a temperature of about 60° to 65°C. when it comes in contact with the paper; a felt may or may not be used, as desired.—A. P.-C.

Mold in Wet Paper Pulp. M. Englund. Finnish Paper and Timber J. 17, No. 24:1098, 1100, 1102, 1104, 1106-1108; 18, No. 1:24, 26-30, 32 (Dec. 31, 1935); (Jan. 15, 1936).—During the last few years, mold caused by fungi in wet paper pulp has been an increasing source of trouble to the industry. Sulphite pulp and Kamyr-pressed groundwood pulp are particularly subject to their attack. The chief carriers of infection are wood, water and air. The wood is completely sterilized in the sulphite digesters and almost in the grinding process. The author considers water the most important source of infection and is not in agreement with Swedish and Norwegian investigators who report an extremely high spore content of the air. These conditions could not be confirmed in Finnish mills. The different means for controlling the growth of mold fungi are discussed, special reference being made to the efficiency of various chemical treatments. In proportion to its price, sulphur dioxide was found the most effective sterilizing agent. A number of microphotographs are included, showing the sterilizing effect of different substances upon various fungi. In conclusion, mention is made of laboratory experiments with antagonistic microorganisms. The results are promising, but not yet sufficiently advanced to warrant publication.—C. J. W.

Obituary

Charles Seybold

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, September 27, 1936—Charles Seybold, founder of the Seybold Machine Company, now a division of the Harris-Seybold-Potter Company, manufacturers of paper cutters, who was well known throughout the paper industry, died today at his residence in Oakwood.

Surviving him are his widow, Mrs. Eleanora Werkmeister Seybold; one brother, Dr. Christian Seybold, Durend, Germany; a stepdaughter, Mrs. Hal V. Gaines, and a grandson, Charles Ricker, both of Dayton.

Few men in the country ever began more humbly and achieved greater eminence in the manufacturing world than Mr. Seybold, who was born April 29, 1858 at Heidenheim, Germany, and who came to this country from his birthplace when 19 years of age, with $1.50.

Not able to speak English and handicapped by having no friends in the city of New York, where he landed, Mr. Seybold was forced to be the master of his own destiny. By a fortitous circumstance, he went from New York to Cincinnati where he met members of the German colony. However, he struggled for years before obtaining the start which placed him in the forefront of machine makers. His dogged determination, aided by mechanical genius, won over obstacles which at first glimpse, seemed impossible of being surmounted.

To Mr. Seybold, a machine was the most alluring thing in the world; he was fascinated with its mysteries and its problems which he set to work to solve. It soon became known generally in Cincinnati that he could mend any piece of mechanism that was ever invented, and furthermore that if a machine was needed for a certain purpose he could evolve the idea.

Mr. Seybold's repair shop gave him abundant occupation, and in 1890 he felt competent to undertake the manufacture of machines. He built a paging or numbering machine for blank books. He not only built it but he sold it, and that was the beginning of his business career.

Circumstances brought him to Dayton, to consult with the C. L. Hawes Strawboard Company, for whom he built a machine. The ability and tenacity of purpose of Mr. Seybold were vividly demonstrated in this work.

The strawboard manufacturer explained his problems, one of which was to obtain a board of a certain thickness, which he had been unable to do. Mr. Seybold gave the matter thorough attention and announced he had the idea. The idea then was translated into steel, cogs and plates, and word was sent to Dayton that the machine was ready for a try-out.

It was found impossible to try it in Cincinnati, so the machine was set up in the strawboard works in Dayton, where it refused to work.

Baffled, but not discouraged, Mr. Seybold kept at the work of perfecting the machine, literally night and day. Suddenly the machine performed exactly as he intended it to do, and did its part in turning out strawboard at the rate of 10 tons a day, with only two girls as operatives.

This striking success definitely established Mr. Seybold as a practical, constructive mechanic and he turned his mind decisively toward manufacturing.

In 1892, he moved to this city from Cincinnati, established himself in a little shop on Louie street, the scene of present large operations, and began to make machinery. From that time the expansion of his business was a foregone conclusion. The history of the plant since that time is well-known in Dayton.

In 1927, Mr. Seybold amalgamated his manufacturing interests with others and the firm is now known as the Seybold Division of the Harris-Seybold-Potter Company. The plant occupies more than five acres and employs approximately 350 persons.

All of the machines originally made by Mr. Seybold are still being manufactured, including box makers' equipment. Many of the machines are the development of his own patents, and reflect the genius of the inventor.

The Harris-Seybold-Potter Company, with which the Seybold Machine Company merged, has branches in France, Germany, India, South America and other widely-scattered sections of the world.

He was a director of the merged concern and always kept in close touch with the business, although not actively identified with it in recent years.

Fred H. Leuders

[FROM OUR REGULAR CORRESPONDENT]

DAYTON, Ohio, September 28, 1936—Fred H. Leuders, 68 years old, travelling representative of the Seybold Division of the Harris-Seybold-Potter Company of Dayton, died unexpectedly at the Jewish Hospital, Cincinnati, last Wednesday, a short time after he was stricken with a paralytic stroke at his residence, 3002 Woodburn avenue, Cincinnati.

For 43 years Leuders was associated with the Seybold Company, having at one time been a director of this concern. That was prior to the inclusion of Seybold in the Harris-Seybold-Potter amalgamation. He was widely known throughout the trade and wherever paper cutters were sold. He was the oldest traveling salesman in point of service in the employ of the company and, according to W. F. Kinsler, sales manager, his service record probably had not been duplicated in machine trade circles.

In recent years Mr. Leuders had established headquarters in Detroit, Mich., from which point he traveled throughout Michigan, although he maintained his home in Cincinnati and kept his regular connection with the Dayton offices of the Seybold Company. During his business career, Mr. Leuders had covered the entire country. He was a brother of Probate Judge William H. Leuders of Hamilton County, Ohio (Cincinnati).

Funeral services were conducted Friday at 2:30 p. m. in Cincinnati and were attended by officials and fellow employees of the Seybold Division.

Bartlett C. Dickinson

[FROM OUR REGULAR CORRESPONDENT]

KALAMAZOO, Mich., September 29, 1936—Bartlett C. Dickinson, prominently identified with the paper industry here, died Thursday, September 24 in the Borgess Hospital. He was sixty years of age and unmarried. He had been in poor health for some time.

Mr. Dickinson was graduated from the University of Michigan in 1899 and was a construction engineer of outstanding ability. He was for some time connected with the George C. Fuller Construction Company and later with the Thompson-Starret Company, during which period he had complete charge of construction of the Union Station in Washington, D. C. In 1906 at the time of the earthquake and fire in San Francisco, he was sent there by the Thompson-Starret Company.

In 1911 Mr. Dickinson became identified with the Standard Paper Company of this city, of which company he later became president, serving until its merger with the Sutherland Paper Company. In 1928 he was appointed

a member of the City Commission and during his administration was chairman of the Building Committee and had charge of the construction of Kalamazoo's Municipal Building. For the past three years Mr. Dickinson served in the capacity of consulting engineer of the Allied Paper Company, directing the alterations and improvements at the King Division of the company.

George A. Eastwood

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., September 29, 1936—George A. Eastwood, vice-president and general manager of the Parsons Paper Company, died last Wednesday at his home, 77 Pleasant street. He had been in failing health for the past five months, retiring a few weeks ago by reason of his illness and being succeeded for the time by John Bagg, formerly with the Millers Falls Paper Company, of Millers Falls.

Mr. Eastwood was born in Holyoke and had been connected with the Parsons Paper Company for 28 years. He succeeded the late Edward P. Bagg in his position in 1931. He was at first salesman for the company.

He was a member of the Second Congregational Church, Roswell Lee Lodge of Masons of Springfield, where he resided fourteen years after his marriage to Miss Eva M. Avery of this city, Connecticut Valley Consistory, Mt. Tom Golf Club, Holyoke Canoe Club, Lake Sunapee, New Hampshire Yacht Club and the Arkwright Club of New York City.

Besides his wife he leaves two sons, George L. and Robert W., a sister, Mrs. Alice McLean and a brother, William H. Eastwood, all of this city. The funeral was held Friday afternoon with burial in Forestdale Cemetery.

Fred Rollins Ayer

Fred Rollins Ayer, sales manager of the Brightwater Paper Company at Adams, Mass., and descendant of an old New England family, died September 24 at St. Luke's Hospital, New York, at the age of 56. He lived at 11 Park Avenue Terrace, Bronxville, N. Y.

Mr. Ayer was the son of Fred W. Ayer and Marietta Ayer of Bangor, Me., and was graduated from Harvard in 1902. Prior to joining the Brightwater Paper Company in 1922 he had been president for ten years of the Eastern Manufacturing Company, manufacturers of paper, at Bangor.

He belonged to the Racquet and Tennis and the Harvard Clubs of New York, and to the Tennis and Racquet Club of Boston.

Surviving are his widow, Mrs. Letitia May Ayer; two daughters, the Misses Dorothy F. and Frances B. Ayer; three sons, Frederick W., John B. and Winslow B. Ayer, and two sisters, the Misses Helena and Dorothy Clark Ayer.

James F. Kamba

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., September 28, 1936—James F. Kamba, president of the Appleton Engraving Company, Neenah, Wis., whose business was largely with paper mills, died suddenly of heart disease Monday, September 21. Prior to the organization of the company fifteen years ago, he was manager of the engraving department of the carton division of the Marathon Paper Mills Company, Menasha, Wis., then known as the Menasha Printing and Carton Company. Burial was made at Highland Memorial Park at Appleton.

Elmer E. Swope

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., September 28, 1936—Funeral services for Elmer E. Swope, aged 73, former Philadelphian, who died at his home here on Monday, September 21, following an illness of several weeks, were held Friday last, at 2 P.M. Mr. Swope was employed by the Downingtown Paper Box Company for twenty years prior to his death. He was born in Frankford, Philadelphia and was a descendant of one of the first settlers in Frankford.

Surviving him are his wife, who formerly was Miss Julia Harvey of Merion; two daughters, Mrs. Dora Walker of Downingtown, and Mrs. O. W. Schneider, of Port Huron, Mich.; and a grandson, Elmer A. Schneider.

Lewis F. Ogden

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., September 28, 1936—Lewis F. Ogden, president of the local Papermakers' Union and prominently employed by Finch, Pruyn & Co., died at his home here last week after a brief illness. He was among the oldest employees, having been with the concern for more than 25 years. A large delegation of persons from neighboring cities attended the funeral services. He was identified with a number of fraternal organizations.

Lynn H. Lake

CHICAGO, Ill., September 28, 1936—Lynn H. Lake, 43 years old, vice-president and general manager of the J. W. Butler Paper Company, died Thursday, September 17, in the Evanston Hospital. He had been an executive of the Butler company for fifteen years.

Mr. Lake, who resided at 1420 Jarvis avenue, is survived by his parents, who live in Paw Paw, Mich.; his wife, Harriet, and one son, Robert, 5 years old.

Walter H. Stuart

Walter H. Stuart, president and chairman of the board of directors of Henry Lindenmeyr & Sons, paper merchants, with offices at 480 Canal Street, New York, died Sunday, September 27, of pneumonia at his home, 1 Plaza Street, Brooklyn. Mr. Stuart, who was born in Brooklyn, would have been 76 years old on October 13.

He had been associated with the Lindenmeyr company since entering its employ as an office boy fifty-eight years ago. A sister, Henrietta Stuart, and a brother, Charles F. Stuart, survive.

John L. Richey Addresses Typothetae

DAYTON, Ohio, September 28, 1936—John L. Richey, executive secretary and counsel of the Central States Paper Trade Association, addressed the members of the Dayton District Typothetae, comprising employing printers in the Miami Valley district, at the annual convention and dinner meeting of that organization at the Van Cleve Hotel last Friday night.

An interesting program was followed, including a musical presentation, and officers for the year were chosen. The attendance from Dayton and surrounding cities was representative, several score employers registering.

Mr. Richey, who is well-known to the local trade and who formerly was identified with the national credit association, came here from Cincinnati, where he is permanently located. He discussed "The Effects of National Legislation Upon the Buyer and Seller Relationship." His general advice to the printers was to "Get your business houses in order."

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

CIGARETTE PAPER

Champagne Paper Corp., *Pipestone County,* St. Nazaire, 100 cs.; H. H. Strauss, *Pipestone County,* Bordeaux, 529 cs.; M. Speigel & Sons Co. Inc., *Pr. Hayes,* Genoa, 64 bls.; Champagne Paper Corp., *Paris,* Havre, 400 cs.

WALL PAPER

S. K. Lonegren, *Drottningholm,* Gothenburg, 16 bxs.; S. K. Lonegren, *Scanmail,* Stockholm, 14 cs.; ———, *Queen Mary,* Southampton, 3 cs.; A. W. Fenton, Inc., *American Banker,* London, 1 cs.; W. H. S. Lloyd & Co., *American Banker,* London, 1 cs.; W. H. S. Lloyd & Co., *Laconia,* Liverpool, 2 trusses.

PAPER HANGINGS

W. H. S. Lloyd & Co., *American Banker,* London, 7 bls.

WALL BOARD

Treetex Corp., *Drottningholm,* Gothenburg, 14 cs.; Johaneson Wales & Sparre, Inc., *Drottningholm,* Gothenburg, 36 bdls.

NEWSPRINT

Jay Madden Corp., *Scanmail,* Kotka, 340 rolls.; Walker, Goulard Plehn Co., *Scanmail,* Kotka, 82 bls.; Jay Madden Corp., *St. Louis,* Hamburg, 133 rolls; News Syndicate Co., *International No. 1,* Gatineau, 310 rolls; Perkins Goodwin & Co., *Hansa,* Hamburg, 522 rolls.

PRINTING PAPER

Meadows Wye & Co., *Queen Mary,* Southampton, 1 cs.; Steiner Paper Corp., *Columbus,* Bremen, 9 cs.; Japan Paper Co., *Maasdam,* Rotterdam, 3 cs.; G. E. Stechert, *Paris,* Havre, 12 cs.; Senefelder Co. Inc., *Hansa,* Hamburg, 14 cs.

WRAPPING PAPER

Guaranty Trust Co., *Drottningholm,* Gothenburg, 899 rolls.

FILTER PAPER

H. Reeve Angel & Co. Inc., *American Banker,* London, 9 cs.; C. Schleicher & Schull Co. Inc., *Hansa,* Hamburg, 18 cs.

TISSUE PAPER

M. Snedeker Corp., *American Banker,* London, 1 cs.; ———, *St. Louis,* Hamburg, 3 cs.; ———, *Hansa,* Hamburg, 2 cs.

BARYTA COATED PAPER

Globe Shipping Co., *Columbus,* Bremen, 95 crates, 7 cs.

SURFACE COATED PAPER

Globe Shipping Co., *Bremen,* Bremen, 1 crate; Globe Shipping Co., *Hansa,* Hamburg, 25 cs.; C. Happel, *Hansa,* Hamburg, 22 cs.

METAL COATED PAPER

C. H. Forsman & Co., *Hansa,* Hamburg, 3 cs.; ———, *Hansa,* Hamburg, 24 rolls.

BASIC PAPER

Dingelstedt & Co., *Columbus,* Bremen, 3 cs.; Globe Shipping Co., *Bremen,* Bremen, 1 cs.

BASIC BOARD

———, *Maasdam,* Rotterdam, 10 cs., 3 rolls.

DECALCOMANIAS

Sellers Transportation Co., *Columbus,* Bremen, 6 cs.; Sellers Transportation Co., *Bremen,* Bremen, 13 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., *American Importer,* Liverpool, 85 cs. (duplex).

TRANSFER PICTURES

Rohner Gehrig & Co., *Bremen,* Bremen, 2 cs.

PHOTO PAPER

American Express Co., *Hansa,* Hamburg, 10 cs.

BOWL PAPER

Blauvelt Wiley Paper Manufacturing Co., *Transylvania,* Glasgow, 5 bls.

WRITING PAPER

———, *Hansa,* Hamburg, 1 cs.

COLORED PAPER

———, *Hansa,* Hamburg, 2 cs.

PAPER TUBES

———, *Hansa,* Hamburg, 175 cs.

BOARDS

Miller Paper Co., *Drottningholm,* Gothenburg, 25 bls.

MISCELLANEOUS PAPER

Jay Madden Corp., *Columbus,* Bremen, 13 bbls.; Jay Madden Corp., *St. Louis,* Hamburg, 44 bbls.; Jay Madden Corp., *Hansa,* Hamburg, 49 bbls., 1 cs.; Keuffel & Esser Co., *Hansa,* Hamburg, 32 rolls, 29 cs.; F. L. Kramer, *Drottningholm,* Gothenburg, 140 bls., 88 rolls; ———, *Drottningholm,* Gothenburg, 24 rolls; The Borregaard Co. Inc., *Drottningholm,* Gothenburg, 600 rolls, 479 bls.; Keller Dorian Paper Co., *Paris,* Havre, 6 cs.

RAGS, BAGGING, ETC.

———, *Noto Maru,* Osaka, 55 bls. rags; Amtorg Trading Corp., *Max Hoelz,* Leningrad, 2,260 bls. rags; Irving Trust Co., *Max Hoelz,* Leningrad, 2,349 bls. waste; R. Blank, *Pipestone County,* Havre, 53 bls. fustians; Joe Levy & Son, *Pipestone County,* St. Nazaire, 46 bls. old linen cuttings; ———, *Pipestone County,* Bordeaux, 11 bls. flax waste; ———, *Liberty,* Dundee, 141 bls. paper stock; Castle & Overton, Inc., *Liberty,* Dundee, 112 bls. paper stock; ———, *American Importer,* Manchester, 119 bls. cotton waste; ———, *American Importer,* Manchester, 46 bls. paper stock; Chase National Bank, *American Importer,* Manchester, 61 bls. rags; Manufacturer's Trust Co., *Montreal Maru,* Shanghai, 100 bls. picker waste; First National Bank of Philadelphia, *Montreal Maru,* Shanghai, 100 bls. picker waste; Royal Manufacturing Co., *Montreal Maru,* Shanghai, 150 bls. cotton waste; E. P. Gus, *Montreal Maru,* Shanghai, 50 bls. cotton waste; New England Waste Co., *Montreal Maru,* Shanghai, 100 bls. cotton waste; First National Bank of Philadelphia,

Montreal Maru, Kobe, 100 bls. cotton waste; Philadelphia National Bank, *Montreal Maru,* Kobe, 250 bls. cotton waste; Continental Bank Trust Co., *Montreal Maru,* Kobe, 133 bls. rags; New England Waste Co., *Montreal Maru,* Kobe, 200 bls. cotton waste; C. Tennant Sons Co., *Montreal Maru,* Kobe, 100 bls. cotton waste; Darmstadt, Scott & Courtney, *Drottningholm,* Gothenburg, 11 bls. rags; Glaser Jaffe Woolstock Co. Inc., *Laconia,* Liverpool, 20 bls. rags; E. P. Gus, *Tokai Maru,* Osaka, 100 bls. cotton waste; F. Stern, *Maasdam,* Rotterdam, 61 bls. rags; ———, *Maasdam,* Rotterdam, 45 bls. bagging; Amtorg Trading Corp., *Scanmail,* Leningrad, 427 bls. rags; Castle & Overton, Inc., *Southern Cross,* Buenos Ayres, 349 bls. rags; Continental Bank Trust Co., *Southern Cross,* Buenos Ayres, 37 bls. new cuttings, 38 bls. rags; Guaranty Trust Co., *Vulcania,* Trieste, 76 bls. rags; ———, *Konigstein,* Antwerp, 224 bls. rags; ———, *Pr. Hayes,* Bombay, 1,152 bls. cotton waste; Castle & Overton, Inc., *Pr. Hayes,* Bombay, 36 bls. new cuttings; Banca Com'l. Italiana Trust Co., *St. Louis,* Hamburg, 117 bls. rags; Chase National Bank, *St. Louis,* Hamburg, 116 bls. rags; ———, *St. Louis,* Hamburg, 441 bls. cotton waste; ———, *Exhibitor,* Piraeus, 255 bls. rags; E. J. Keller Co. Inc., *Black Hawk,* ———, 121 bls. bagging, 184 bls. paper stock; E. J. Keller Co. Inc., *Pr. Roosevelt,* ———, 230 bls. paper stock.

GLUE STOCK, ETC.

Eastman Kodak Co., *Laconia,* Liverpool, 317 bags hide glue; ———, *Columbus,* Bremen, 227 bags glue; ———, *Vulcania,* Trieste, 100 bags bone glue; ———, *Konigstein,* Antwerp, 114 bls., 25 cs. bone glue.

CASEIN

American British Chemical Supplies, *Southern Cross,* Buenos Ayres, 834 bags; ———, *Pipestone County,* Bordeaux, 265 bags; National City Bank, *Paris,* Havre, 550 bags; ———, *Hansa,* Hamburg, 70 bags.

WOOD PULP

J. Andersen & Co., *Drottningholm,* Gothenburg, 250 bls. sulphite; Perkins Goodwin & Co., *Drottningholm,* Gothenburg, 1,397 bls. kraft pulp; Price & Pierce, Ltd., *Drottningholm,* Gothenburg, 250 bls. unbleached sulphite; A. Giese & Son, *Maasdam,* Rotterdam, 50 bls. wood pulp; Lagerloef Trading Corp., *Scanmail,* Kotka, 260 bls. sulphate, 52 tons; Lagerloef Trading Corp., *Scanmail,* Kotka, 350 bls. sulphite, 59 tons; ———, *Vulcania,* Trieste, 100 bls. wood pulp; Castle & Overton, Inc., *Hansa,* Hamburg, 250 bls. wood pulp, 50 tons.

WOOD PULP BOARDS

Jay Madden Corp., *Scanmail,* Kotka, 17 rolls; H. Fuchs & Son, *Drottningholm,* Gothenburg, 89 crates.

WOOD PULP SHEETS

———, *Hansa,* Hamburg, 30 cases.

NEWARK IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

H. G. Craig Co., *Newscarrier,* Donnacona, 343 rolls newsprint; ———, *Donpaco,* Donnacona, 315 rolls newsprint.

ALBANY IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Bulkley Dunton & Co., *Sandhamn,* ———, 2,000 bls. wood pulp; Price & Pierce, Ltd., *Ivar,* ———, 500 bls. bleached sulphite; Price & Pierce, Ltd., *Ivar,* ———, 150 bls. unbleached sulphite.

BOSTON IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

———, *American Importer,* Manchester, 44 bls. rags, 106 bls. cotton waste; ———, *American Importer,* Manchester, 123 bls. rags, 503 bags hide cuttings; ———, *American Importer,* Liverpool, 88 bls. paper stock; Brown Bros. Harriman & Co., *American Importer,* Liverpool, 34 bls. cotton waste; C. H. Powell, *Maasdam,* Rotterdam, 230 bls. cotton waste; ———, *Maasdam,* Rotterdam, 17 bls. rags; ———, *Maasdam,* Rotterdam, 44 bls. wood pulp boards; International Purchasing Co., *Maasdam,* Rotterdam, 61 coils old rope; ———, *Maasdam,* Rotterdam, 66 rolls straw board; Castle & Overton, Inc., *Maasdam,* Rotterdam, 155 bls. wood pulp; ———, *Vulcania,* Trieste, 100 bags hide glue; ———, *Pr. Hayes,* Bombay, 166 bags glue stock; Pagel Horton & Co. Inc., *Bessa,* Sweden, 3,335 bls. wood pulp; Gottesman & Co. Inc., *Bessa,* Sweden, 690 bls. wood pulp; Bulkley Dunton & Co., *Tolken,* ———, 250 bls. wood pulp; Bulkley Dunton & Co., *Sandhamn,* ———, 3,900 bls. wood pulp; Price & Pierce, Ltd., *Bessa,* ———, 600 bls. bleached sulphite; Price & Pierce, Ltd., *Bessa,* ———, 450 bls. unbleached sulphite.

NEW LONDON IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Price & Pierce, Ltd., *Bessa,* ———, 1,800 bls. unbleached sulphite.

PHILADELPHIA IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Castle & Overton, Inc., *Pipestone County,* Havre, 123 bls. new cuttings, 320 bls. rags; R. Blank, *Pipestone County,* Havre, 501 bls. rags; Castle & Overton, Inc., *Pipestone County,* St. Nazaire, 114 bls. rags; Congoleum Nairn Co., *Pipestone County,* Bordeaux, 559 bls. rags; Darmstadt Scott & Courtney, *Pipestone County,* Bordeaux, 58 bls. cotton waste; E. J. Keller Co. Inc., *Pipestone County,* ———, 342 bls. rags; Philadelphia National Bank, *Liberty,* Hamburg, 22 bls. rags; ———, *Liberty,* Hamburg, 110 rolls wrapping paper; ———, *Liberty,* Dundee, 112 bls. paper stock; O. Smith & Sons, *Montreal Maru,* Kobe, 100 bls. picker waste; Royal Manufacturing Co., *Montreal Maru,* Shanghai, 50 bls. cotton waste; American Cotton Products Co., *Montreal Maru,* Shanghai, 150 bls. cotton waste; ———, *Montreal Maru,* Kobe, 275 bls. cotton waste; Chase National Bank, *Montreal Maru,* Kobe, 20 bls. rags; Philadelphia National Bank, *Tokai Maru,* Kobe, 85 bls. rags; J. W. Hampton Jr. Co., *Scanmail,* Kotka, 492 rolls newsprint; Lagerloef Trading Co., *Scanmail,* Kotka, 50 bls. sulphate, 10 tons; Paper Manufacturer's Co. Inc., *Scanmail,* Kotka, 133 bls. newsprint; Castle & Overton, Inc., *Scanmail,* Kotka, 1,276 bls. wood pulp, 253 tons; Bulkley Dunton & Co., *Scanmail,* ———, 300 bls. sulphite, 50 tons; Gottesman & Co. Inc., *Scanmail,* Stockholm, 450 bls. sulphite, 75 tons.

BALTIMORE IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Congoleum Nairn Co., *Pipestone County,* Havre, 231 bls. rags; Congoleum Nairn Co., *Pipestone County,* St. Nazaire, 109 bls. rags; Johaneson Wales & Sparre, Inc., *Scanmail,* Kotka, 300 bls. mechanical pulp, 50 tons; Gottesman & Co. Inc., *Scanmail,* Kotka, 250 bls. dry pulp, 50 tons; Johaneson Wales & Sparre, Inc., *Scanmail,* Helsingfors, 875 bls. mechanical pulp, 177 tons.

NORFOLK IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

N. Y. Trust Co., *Pipestone County,* Havre, 205 bls. bagging.

NEW ORLEANS IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Loumar Textile By-Products Co., *Montreal Maru,* Kobe, 200 bls. bagging; Parsons & Whittemore, Inc., *Hagen,* ———, 500 bls. wood pulp; Gottesman & Co. Inc., *Tabor,* Finland, 864 bls. wood pulp.

(Continued on page 47)

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, September 30, 1936.

Conditions in the local paper market are fairly satisfactory. The volume of sales of practically all grades of paper continues higher than last year and the outlook for the closing months of the year is decidedly promising. Sales forces of the leading paper houses express optimism in the future trend. The price situation remains unchanged.

The newsprint paper market is exhibiting a stronger undertone. According to the index of Printer's Ink, newspaper advertising in August showed a gain of 8 per cent over the corresponding month last year, and this improvement should continue until the end of the year, at least. Prices are holding to schedule.

Demand for the various grades of fine paper is fairly persistent and book, cover, bond and ledger papers are moving in good volume for the season. Prices remain unchanged. Tissues are in excellent request. The coarse paper market is displaying strength. Paper board supplies are going forward at a steady pace. Quotations are fairly steady.

Mechanical Pulp

The position of the ground wood pulp market is little changed, although manufacturing operations are becoming more active. Demand for both domestic and imported mechanical pulp is slightly better than of late. With stocks at the pulp mills not excessive the statistical position of the industry is sound. Prices are holding to formerly quoted levels.

Chemical Pulp

Business in the chemical pulp market is brisk. Bleached sulphite and kraft pulps continue firm. Bleachable grades of unbleached sulphite are attracting more interest from the paper mills and prices are stronger. Bleached soda pulp is steady and unchanged. The outlook for this industry is encouraging from the producer's standpoint.

Old Rope and Bagging

The old rope market is showing signs of awakening. Demand for both domestic and imported old manila rope is gradually improving. Small mixed rope is fairly active. Old rope quotations are firmer. The bagging market is displaying greater strength. Both scrap and gunny bagging are in good request. The price situation is firmer.

Rags

Some improvement transpired in the domestic rag market. New and old cotton rags are in better demand. No. 1 white shirt cuttings are in good request for domestic and export account and there have been some good sized orders shipped of late. Roofing grades are in seasonal request. The imported rag market is rather quiet, due to high prices abroad.

Waste Paper

The paper stock market is steadier. Board mill interest in the lower grades is more in evidence and quotations on strictly folded news and No. 1 mixed paper are steadier. Demand for the higher grades of waste paper is well sustained, especially for white envelope cuttings and hard and soft white shavings. Book stock is moving more freely.

Twine

Steadiness prevails in the local twine market. Demand for the various varieties is fairly lively and the outlook for the next few months is bright. Prices are holding to formerly quoted levels despite the usual keen competition for desirable orders.

Brown Co. Secures Large Pulp Contract

The Brown Company, Berlin, N. H., has secured a large contract for pulp of different types from a company in Japan, totaling close to 100,000 tons, in all, and will proceed with production at once. It is expected to advance operating schedule at local mills, with additions to working forces in different departments. This is one of the largest pulp orders ever received by the company. Henry P. Carruth is general manager.

To Furnish Roll Coverings For Crosset

The American Wringer Company, Woonsocket, R. I., reports the contract for the Tensilastic Rubber Covering of press rolls for the new Minton Drier machine being built for the Soundview Pulp Company of Everett, Wash.

IMPORTS OF PAPER AND PAPER STOCK

(Continued from page 46)

HOUSTON IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Loumar Textile By-Products Co., *Montreal Maru*, Kobe, 800 bls. bagging.

SOUTH HAVEN IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Price & Pierce, Ltd., *Reidun*, ———, 1,500 bls. unbleached sulphite.

LOS ANGELES IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

———, *Tokai Maru*, Shanghai, 400 bls. rags.

MONTREAL IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Gottesman & Co. Inc., *Idefjord*, Sweden, 28,300 bls. wood pulp; Pagel Horton & Co. Inc., *Tyrifjord*, Sweden, 16,809 bls. wood pulp.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, September 30, 1936.

BLANC FIXE.—Business in the blanc fixe market is fairly active. The contract movement is normal for the season. Prices are steady. The pulp is quoted at $42.50 to $45 per ton, in bulk; while the powder is selling at 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER—The position of the bleaching powder market is practically unchanged. Demand for this product is slightly better. Prices are generally holding to schedule. Bleaching powder is quoted at $2 to $2.25 per 100 pounds, in drums, at works.

CASEIN—The casein market continues firm. Domestic standard ground is quoted at 17½ and finely ground at 18 cents; while French and Argentine standard ground are selling at 17 and finely ground at 17½ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA—Steadiness prevails in the caustic soda market. Contract shipments are moving freely. Prices remain unchanged. Solid caustic soda is quoted at $2.55 to $2.60; while the flake and ground are selling at $2.95 to $3 per 100 pounds, in drums, at works.

CHINA CLAY—The china clay market is displaying strength. Demand from the paper mills is brisk. Prices are firm. Imported china clay is quoted at $12.50 to $21 per ton, ship side; while domestic paper making clay is selling at $6.50 to $12 per ton, at mine.

CHLORINE—Conditions in the chlorine market are satisfactory. Supplies are moving into consumption in good volume. Prices are holding to formerly quoted levels without difficulty. Chlorine is selling at $2.15 to $2.55 per 100 pounds, in tank cars, at works.

ROSIN—The rosin market continues firm. Paper making gum rosin is quoted at $6.02½ and wood rosin at $6.05 per 280 pounds, gross weight, in barrels, at Savannah. Seventy per cent rosin size is selling at $3.06 per 100 pounds, in tank cars, at works.

SALT CAKE—Paper mill demand for salt cake is persistent. The contract movement is well up to average. Salt cake is still quoted at $12 to $13; chrome salt cake at $11 to $12 per ton, at works; while imported salt cake is selling at $12 to $13 per ton, ship side.

SODA ASH—The soda ash market is exhibiting a strong undertone. Contract shipments are going forward at a steady pace. Prices are firm. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.05; in bags, $1.20; and in barrels, $1.50.

STARCH—Trading in the starch market is moderately active. The contract movement is normal for the time of year. Prices remain unchanged. Special paper making starch is quoted at $4 per 100 pounds, in bags; and at $4.27 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA—Demand for sulphate of alumina is fairly heavy. Contract shipments are moving freely. Prices are holding to schedule. Commercial grades are quoted at $1.35 to $1.60; while iron free is selling at $2 to $2.25 per 100 pounds, in bags, at works.

SULPHUR—The sulphur market is steady. Yearly contracts are quoted at $18 per ton, in bulk, on orders of 1,000 tons, or over, and $20 on smaller quantities. On spot and nearby car loads the quotation is $21 per ton. All quotations are in car lots, at works.

TALC—No radical changes transpired in the talc market. Demand from the paper mills is routine. Prices remain steady and unchanged. Domestic talc is quoted at $16 to $18 per ton, at eastern mines; while imported talc is selling at $23 to $30 per ton, on dock.

Market Quotations

Paper

Rag Content Bond & Ledgers—Delivered Zone 1

	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers—Delivered Zone 1

	Bonds	Ledgers
No. 1 Sulphite	7.50 @	8.50
No. 2 Sulphite	6.50 @	7.50
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50
Book, B Grade, Cased		
S. & S. C.	5.85 @	6.60
S. & S. C. Litho.	6.10 @	6.85
M. F.	5.60 @	6.35
No. 4 Grade		
Coated and Enamel	6.80 @	7.65
Coated Litho	6.80 @	7.65
Tissues—Per Ream—		
White No. 1	.82½ @	—
White No. 1 M. G.	.77½ @	—
White No. 1½	.62½ @	—
White No. 2	.60 @	—
Anti-Tarnish M. G.	.67½ @	—
Colored	.80 @	—
Kraft	.67½ @	—
Manila	.60 @	—
Unbleached Toilet	2.60 @	3.30
Bleached Toilet	3.94 @	5.26
Paper Towels—		
Unbleached	2.10 @	3.35
Bleached	3.30 @	3.70
Manila—		
No. 1 Jute	9.00 @	9.25
No. 2 Jute	7.75 @	8.50
No. 1 Wood	4.00 @	5.25
No. 2 Wood	3.50 @	4.00
Fibre Papers—		
No. 1 Fibre	4.25 @	5.50
No. 2 Fibre	4.00 @	4.75

(Delivered New York)

News, per ton—		
Roll, contract	41.00 @	—
Sheets	46.00 @	—
Kraft—		
No. 1 Northern	4.25 @	4.75
Standard	4.00 @	4.12½
Southern	3.87½ @	—
Glazed	4.37½ @	—
Striped	4.62½ @	—
Boards—per ton—		
News	30.00	@32.50
Chip	32.50	@35.00
Sgl. Mla. Ll. Chip	45.00	@47.50
Jute Lined Chip	47.50	@50.00
Kraft Liners	62.50	@65.00
White Pat. Coated	57.50	@60.00
Binders Boards	67.00	@75.00

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—		
Moist	24.00	@25.00
Dry	24.00	@25.00
(Delivered)		
No. 1 Domestic and Canadian	27.00	@28.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—		
Division 1	2.70 @	3.30
Division 2	2.65 @	2.75
Division 3	2.60 @	2.70
Prime Qualities—		
Class 1. All Prime Easy Bleaching	2.10 @	2.15
Other Than Easy Bleaching—		
Class 2. Higher than Standard	2.05 @	2.10
Class 3 Standard	2.00 @	2.05
Class 4. Lower than Standard	1.95 @	2.00

(On Dock, Atlantic Ports)

Kraft Bleached	3.00 @	3.25
Kraft Light & Strong	2.10 @	2.20
Kraft No. 1	1.85 @	2.10
Kraft No. 2	1.70 @	1.85
(F. o. b. Pulp Mill)		
Kraft Domestic	1.80 @	2.00
(Delivered)		
Soda Bleached	2.60 @	—

* Add 60 Cents per short ton, dock charges, for Albany; $2.00 for Lake Ports East and $3.00 for Lake Ports West of Mackinac Straits.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	7.75 @	8.00
Silesias No. 1	5.50 @	5.75
New Unbleached	8.25 @	8.50
New Soft Blacks	3.75 @	4.00
Blue Overall	6.75 @	7.00
Fancy	3.00 @	3.25
Washables	2.25 @	2.50
Mixed Khaki Cuttings	3.50 @	3.75
O. D. Khaki Cuttings	4.25 @	4.50

Old Rags

White, No. 1—		
Repacked	3.25 @	3.50
Miscellaneous	2.75 @	3.00
White, No. 2—		
Repacked	2.25 @	2.50
Miscellaneous	1.75 @	2.00
Thirds and Blues—		
Repacked	2.00 @	2.25
Miscellaneous	1.90 @	2.00
Roofing Rags—		
No. 1	1.75 @	1.80
No. 2	1.15 @	1.25
No. 3 (bagging)	1.10 @	1.15
No. 4	1.10 @	1.15
No. 5A	.80 @	.90

Foreign Rags

New Rags

New Dark Cuttings	2.25 @	2.50
New Mixed Cuttings	2.00 @	2.25
New Light Silesias	5.50 @	5.75
Light Flannelettes	5.50 @	5.75
New White Cuttings	7.00 @	7.50
New Light Oxfords	4.00 @	4.50
New Light Prints	3.00 @	3.25

Old Rags

No. 1 White Linens	7.50 @	8.00
No. 2 White Linens	6.50 @	7.00
No. 3 White Linens	4.50 @	5.00
No. 4 White Linens	2.25 @	2.50
No. 1 White Cotton	4.25 @	4.75
No. 2 White Cotton	3.25 @	3.75
No. 3 White Cotton	2.50 @	2.75
No. 4 White Cotton	1.90 @	2.15
Extra Light Prints	2.00 @	2.25
Ord. Light Prints	1.75 @	1.85
Med. Light Prints	1.55 @	1.65
Dutch Blue Cottons	2.25 @	2.50
French Blue Linens	3.50 @	4.00
German Blue Linens	2.50 @	2.75
German Blue Cottons	2.00 @	2.25
Checks and Blues	2.00 @	2.25
Linsey Garments	2.15 @	2.25
Dark Cottons	1.90 @	2.10
Old Shopperies	1.75 @	2.00
New Shopperies	1.75 @	2.00
French Blues	2.25 @	2.50

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	2.10 @	2.15
Domestic	1.75 @	1.85
Wool Tares, light	1.50 @	1.75
Wool Tares, heavy	1.85 @	2.05
Bright Bagging	1.70 @	1.75
Manila Rope—		
Foreign	2.50 @	2.95
Domestic	2.75 @	3.00
Jute Strings	2.00 @	2.25
Sisal Strings	2.00 @	2.10
Mixed Strings	.80 @	1.00

Old Waste Papers

(F. o. b. New York)

Shavings—		
White Envelope Cuttings	2.55 @	2.65
Ordinary Hard White No. 1	2.25 @	2.35
Hard White No. 2	2.10 @	2.20
Soft White No. 1	1.95 @	2.05
Flat Stock—		
Stitchless	.65 @	.75
Over issue Mag	.65 @	.75
Solid Flat Book	.55 @	.60
Crumpled No. 1	.35 @	.40
Ledger Stock	.85 @	.90
New B. B. Chips	.30 @	.35
Manilas—		
New Env. Cut	1.75 @	1.85
New Cuttings	1.35 @	1.45
Old Kraft Machine—		
Compressed bales	1.15 @	1.30
News—		
No. 1 White News	1.15 @	1.25
Strictly Overissue	.50 @	.60
Strictly Folded	.40 @	.45
No. 1 Mixed Paper	.35 @	.40

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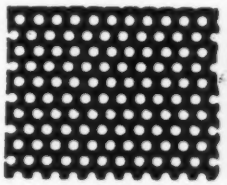

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Twines

(F. o. b. Mill)

(Soft Fibre)

Coarse Polished—

India	.13¼	@	.15¾
Belg. White Hemp	.14¼	@	.17¾
India Compress	.13¾	@	.14¾

Fine Polished—

Fine India	.21½	@	.23½
Special	.19½	@	.21½

Unpolished—

Box	.12	@	.12½
Paper Makers	.09	@	.13½
Tube Rope	.10	@	.15½
Wall Paper	.11	@	.14½
Wrapping	.15½	@	.21
Special	.15	@	.15½
Soft Fiber Rope	.12½	@	.12¾

(Hard Fibre)

Bond	.10½	@	.19
Anchor	.10	@	.11½
Manila	.21	@	.28

CHICAGO

Paper

(F. o. b. Mill)

Rag Bond	.12	@	.40
Water Marked Sulphite Bond	.06¾	@	.11
Sulphite Bond	.05½	@	.07¼
Superfine Writing	.18	@	.24
No. 1 M. F. Book	.06½	@	.07¼
No. 2 M. F. Book	.05¼	@	.06¼
No. 1 S.&S.C. Book	.06¼	@	.07¾
No. 2 S.&S.C. Book	.05¾	@	.06½
Coated Book	.07	@	.12
Coated Label	.07	@	.08½
No. 1 Manila	.04¼	@	.05¾
No. 1 Fibre	.04¾	@	.05¾
No. 2 Manila	.04¼	@	.04¾
Butcher's Manila	.03¼	@	.03¾
No. 1 Kraft	4.75	@	5.00
Southern Kraft	3.88	@	4.25
No. 2 Kraft	3.88	@	4.25
Wood Tag Boards	.04¼	@	.06¼
Sulphite Screenings	.03	@	.03¼
Manila Tissue	.05¾	@	.07
White Tissue	.07	@	.09

(Delivered Central Territory)

News, per ton—			
Rolls, contract	42.00	@	—
Sheets, open	47.00	@	—
Boards, per ton—			
Plain Chip	46.50	@	—
Solid News	50.00	@	—
Manila Lined Chip	55.00	@	—
Patent Coated	65.00	@	—
Container Lined—			
85 Test, per 1000 sq. ft.			1.70
100 Test, per 1000 sq. ft.			1.85

Old Papers

(F. o. b. Chicago)

Shavings—

No. 1 White Envelope Cuttings	1.70	@	2.00
No. 1 Hard White	1.40	@	1.65
No. 1 Soft White	1.25	@	1.50
Ledger & Writings	.60	@	.70
Solid Books	.50	@	.60
Blanks	1.00	@	1.05
Kraits	.80	@	.90
New Kraft Cuts	1.20	@	1.30
Manila Env. Cuts	1.25	@	1.30
Ex. No. 1 Manila	.90	@	1.00
Print Manila	.40	@	.50
Overissue News	.40	@	.45
Old Newspapers—			
No. 1 Folded News	.42½	@	.45
No. 1 Mixed Paper	.25	@	.30
Roofing Stocks—			
No. 1	30.00	@	—
No. 2	28.00	@	—

PHILADELPHIA

Paper

Rag Content Bond & Ledgers—
Delivered Zone 1

	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers—
Delivered Zone 1

	Bonds	Ledgers
No. 1 Sulphite	7.75	8.75
No. 2 Sulphite	6.75	7.75
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50

F.o.b. Mill

Book, M. F.	5.00	@	—
Book, S. S. & C.	5.25	@	—
Book, Coated	6.15	@	—
Coated Lithograph	6.15	@	—
No. 1 Jute Manila	10.50	@	—
Manila Sul., No. 1	6.75	@	—
Manila No. 2	4.25	@	—
No. 1 Kraft	6.00	@	—
Southern Kraft	5.00	@	—
News Print Rolls	40.00	@	—
Straw Board	40.00	@	45.00
News Board	40.00	@	—
Chip Board	37.50	@	—
Wood Pulp Board	70.00	@	85.00
Binder Boards—			
No. 1, per ton	75.00	@	80.00
No. 2, per ton	70.00	@	75.00
Carload lots	65.00	@	70.00
Tarred Felts—			
Regular	52.25	@	54.25
Slaters (per roll)	.84	@	.94

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1.	.08	@	.08½
New White, No. 2.	.04½	@	.05
Light Silesias	.05½	@	—
Silesias, No. 1	.04½	@	.05
Black Silesias, soft.	.03½	@	.04
New Unbleached	.06	@	—
Washable, No. 1	.02	@	.02½
Blue Overall	.06	@	.06½
Cottons—According to grades—			
Washable, No. 2	.02½	@	.04½
New Blue	.01¾	@	.02¼
Fancy	.03	@	—
New Black Soft	.04	@	.04½
New Light Seconds	.03½	@	.04
New Dark Seconds	1.75	@	2.00
Khaki Cuttings—			
No. 1 O. D.	.04	@	.04½
No. 2 Mixed	.03½	@	.04
Corduroy	.02	@	.02¼
New Canvas	.04	@	.04½
New Black Mixed.	.02	@	.02¼

Domestic Rags (Old)

White No. 1—			
Repacked	4.00	@	4.50
Miscellaneous	3.00	@	3.50
Thirds and Blues—			
Miscellaneous	2.00	@	—
Repacked	2.25	@	2.50
Black Stockings (Export)	4.50	@	5.00
Roofing Stock—			
Foreign No. 1	2.20	@	2.25
Domestic No. 1	1.50	@	—
Domestic No. 2	1.40	@	—
Roofing bagging	1.10	@	—

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	2.00	@	—
Domestic	2.25	@	—
Manila Rope	2.25	@	2.50
Sisal Rope	2.00	@	2.25
Mixed Rope	1.00	@	1.10
Scrap Burlaps—			
No. 1	2.00	@	2.50
No. 2	.90	@	1.00
Wool Tares, heavy	3.00	@	3.25
Mixed Strings	1.00	@	1.10
No. 1 New Light Burlap	3.00	@	3.50
New Burlap Cuttings	2.50	@	2.75

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White	2.30	@	2.40
No. 2 Hard White	2.10	@	2.20
No. 1 Soft White	1.80	@	1.85
No. 2 Soft White	1.40	@	1.45
No. 1 Mixed	—	@	.85
Solid Ledger Stock	1.50	@	1.60
Ledger Stock, white	1.15	@	1.20
Ledger Stock, colored	.85	@	.90
No. 1 Books, heavy	.65	@	.70
Manila Cuttings	1.80	@	1.90
Print Manila	.55	@	.60
Container Manila	.55	@	.60
Kraft Paper	1.10	@	1.20
No. 1 Mixed Paper	.45	@	.50
Straw Board Chip	.40	@	—
Binders Board Chip	.40	@	—
Corrugated Board	.60	@	.65
Overissue News	.60	@	—
Old Newspapers	.45	@	—

BOSTON

Paper

Rag Content Bond & Ledgers—
Delivered Zone 1

	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers—
Delivered Zone 1

	Bonds	Ledgers
No. 1 Sulphite	7.50	8.50
No. 2 Sulphite	6.50	7.50
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50

F.o.b. Mill

Book, Super	.06	@	.09
Book, M. F.	.05½	@	.08½
Book, Coated	.08½	@	.18
Coated Litho	.09	@	.12
Jute Manila No. 1	.11	@	.13
Manila, Sul. No. 1	.04¾	@	.06¼
Manila, Sul. No. 2	.03¾	@	.04½
No. 1 Kraft	.04¼	@	—
No. 2 Kraft	.04½	@	—

(Delivered New England points)

Southern Kraft	.04	@	—
News Print Rolls	39.50	@	—
Straw Board, rolls	.009	—	@35.00
Filled News Board	40.00	@	45.00
Chip Board	37.50	@	40.00
Single Manila Lined Chip	47.50	@	52.50
Single White, Patent Coated News Board (Bender)	57.50	@	67.50
Wood Pulp Board	70.00	@	75.00
Binder Boards (Standard Grade)	67.00	@	75.00

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White	2.00	@	2.10
No. 1 Soft White	1.75	@	1.85
No. 2 Mixed	.75	@	.80
Solid Ledger Books	1.50	@	1.75
Overissue Ledger Stock	1.15	@	1.30
Mixed Ledgers	.85	@	.90
No. 1 Books, heavy	.60	@	.70
No. 1 Books, light	.50	@	.60
Crumpled Stitchless Book Stock	.50	@	.60
Manila Env. Cuttings	1.50	@	1.60
No. 1 Old Manila	.60	@	.65
White Blank News	1.10	@	1.15
No. 1 Kraft	1.15	@	—
Mixed Papers	.35	@	—
Print Manila	.55	@	.60
Container Manilas	.27½	@	—
Old Newspapers	.40	@	.42½
Overissue News	.50	@	—
Box Board Chips	—	@	.25
Corrugated Boxes	.47½	@	.50
Kraft corrugated boxes	.95	@	1.00
Screening Wrappers	.40	@	.45

Bagging

(F. o. b. Boston)

Manila Rope—			
Foreign	2.50	@	2.80
Domestic	2.75	@	—
Transmission Rope	1.25	@	1.35
Jute Rope	2.12½	@	2.25
Jute Carpet Threads	1.00	@	1.10
Gunny No. 1—			
Foreign	1.90	@	2.00
Domestic	1.75	@	1.80
Bleachery Burlap	4.25	@	4.50
Scrap Burlap—			
Foreign	1.90	@	2.00
Domestic	1.60	@	1.75
Scrap Sisal	2.00	@	2.10
Scrap Sisal for Shredding	2.10	@	2.35
Wool Tares, heavy	1.90	@	2.00
New Burlap Cuttings	2.00	@	2.25
Australian Wool Pouches	2.35	@	2.50
Heavy Baling Bagging	1.85	@	2.20
Paper Mill Bagging	1.65	@	1.70
Bagging No. 2	1.10	@	1.25

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.03½	@	.03¾
New White No. 1	.07¼	@	.07¾
New White No. 2	.04	@	.04¼
Silesias No. 1	.06	@	.06¼
New Black Silesias	.03½	@	.04¼
Soft Unbleached	.07½	@	.08
Blue Cheviot	.06¼	@	.06¾
Fancy	.03	@	.03¼
Washable	.02	@	.0250
Cottons—According to grades—			
Blue Overalls	6.25	@	6.75
New Black, soft	.04	@	.04¼
Khaki Cuttings	.03¾	@	.04
O. D. Khaki	.03¼	@	.04¼
Corduroy	.02¼	@	.03
New Canvas	—	@	.05
B.V.D. Cuttings	.07½	@	—

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	—	@	2.75
Miscellaneous	2.50	@	2.75
White No. 2—			
Repacked	1.90	@	2.00
Miscellaneous	2.00	@	2.25
Twos and Blues	1.75	@	2.00
Thirds and Blues—			
Repacked	1.37½	@	1.75
Miscellaneous	1.25	@	1.62½
Black Stockings	3.90	@	4.00
Roofing Stock—			
No. 1	1.45	@	1.50
No. 2	1.25	@	1.35
No. 3	1.15	@	1.25

Foreign Rags

(F. o. b. Boston)

Dark Cottons	1.70	@	2.00
New White Shirt Cuttings	6.50	@	6.75
Dutch Blues	2.25	@	2.50
New Checks & Blues	2.50	@	3.00
Old Fustians	1.75	@	1.90
Old Linsey Garments	2.12½	@	2.37½
New Silesias	5.00	@	5.75

TORONTO

Paper

Bond—Delivered—

No. 5 White	.10¾	@	—
No. 6 White	.10	@	—
No. 5 Tints	.11¾	@	—
No. 6 Tints	.10½	@	—
No. 5 Golden Rod	.12¾	@	—
No. 6 Golden Rod	.12	@	—

Ledgers—

Ledgers, No. 1	.34½	@	—
Ledgers, No. 2	.25½	@	—
Writing	.09	@	.09½

Book—

No. 1 M. F.	6.50	@	6.75
No. 2 M. F.	6.25	@	6.50
No. 3 M. F.	5.00	@	5.35
No. 1 S. C.	7.00	@	7.50
No. 2 S. C.	6.50	@	7.00
No. 3 S. C.	5.50	@	6.00
No. 1 Coated and Litho	12.00	@	—
No. 2 Coated and Litho	10.50	@	—
No. 3 Coated and Litho	9.50	@	—
Coated tinted	13.00	@	—

Wrapping—delivered—

Rag Brown	4.75	@	—
White Wrap	3.50	@	—
"B" Manila	4.80	@	—
No. 1 Manila	5.40	@	—
Fiber	5.40	@	—
Kraft, M. F.	5.90	@	—
Kraft, No. 2	5.40	@	—

(F. o. b. Cars Toronto)

News, per ton—			
Rolls (contract)	Nominal		
Sheets	Nominal		

Pulp

Ground wood	27.00	@	—
Unbleached Sulphite	42.00	@	—
Book (Class 1)	58.00	@	—
Writing (Class 2)	59.00	@	—
Select (Class 3)	60.00	@	—

Old Waste Paper

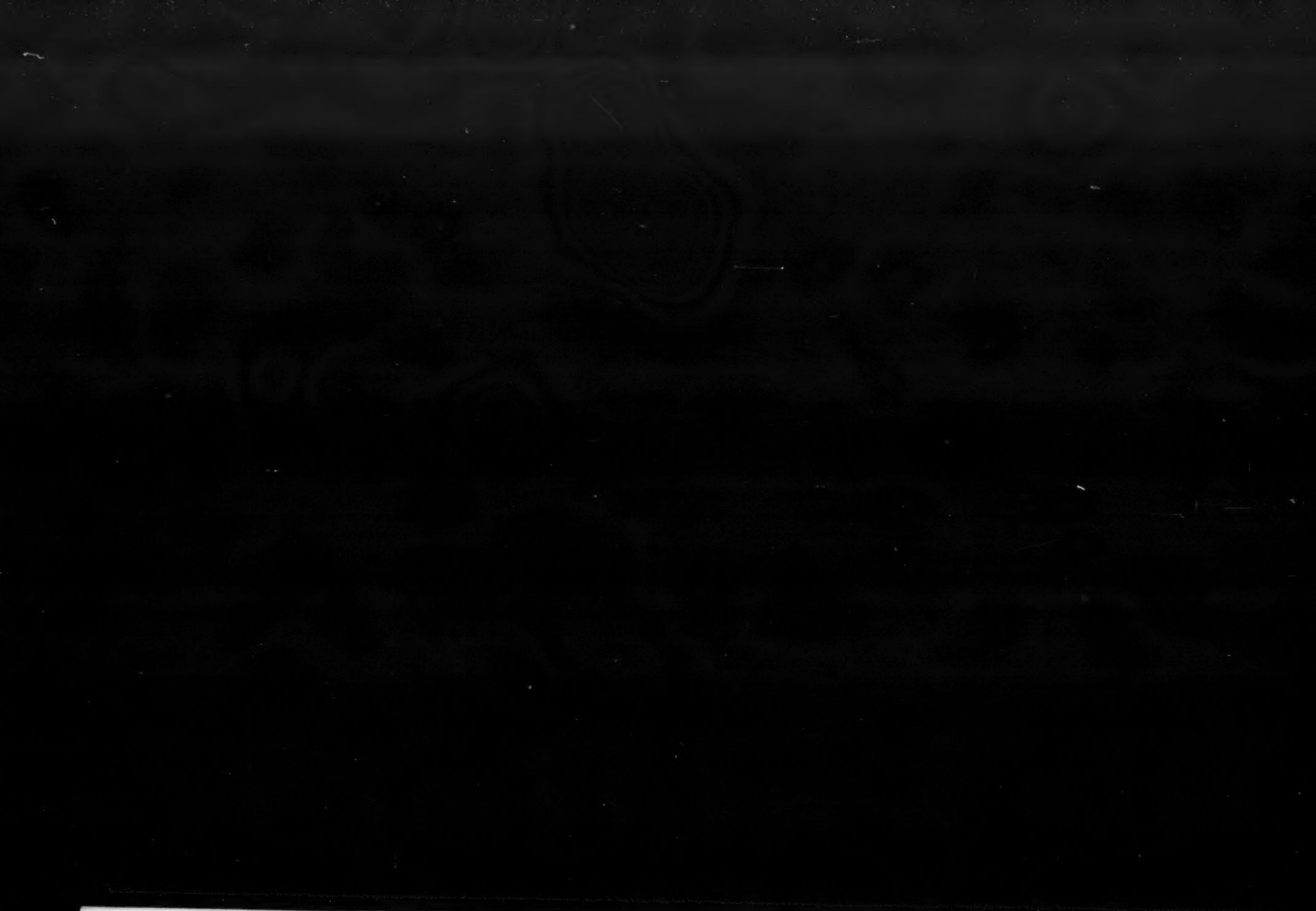
(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut	2.00	@	2.25
Soft White	1.60	@	1.90
White Blk. News	1.25	@	1.40
Book and Ledger—			
Flat Magazine and Book Stock (old)	.80	@	.90
Light and Crumpled Book Stock	.70	@	.80
Ledgers and Writings	.90	@	1.00
Manilas—			
New Manila Cut	1.25	@	1.40
Printed Manilas	.50	@	—
Kraft	1.00	@	1.60
News and Scrap—			
Strictly Overissue	.55	@	—
Strictly Folded	.50	@	—
No. 1 Mixed Paper	.40	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.07½	@	.07¾
Fancy Shirt Cuttings	.02¾	@	.03



a member of the City Commission and during his administration was chairman of the Building Committee and had charge of the construction of Kalamazoo's Municipal Building. For the past three years Mr. Dickinson served in the capacity of consulting engineer of the Allied Paper Company, directing the alterations and improvements at the King Division of the company.

George A. Eastwood

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., September 29, 1936—George A. Eastwood, vice-president and general manager of the Parsons Paper Company, died last Wednesday at his home, 77 Pleasant street. He had been in failing health for the past five months, retiring a few weeks ago by reason of his illness and being succeeded for the time by John Bagg, formerly with the Millers Falls Paper Company, of Millers Falls.

Mr. Eastwood was born in Holyoke and had been connected with the Parsons Paper Company for 28 years. He succeeded the late Edward P. Bagg in his position in 1931. He was at first salesman for the company.

He was a member of the Second Congregational Church, Roswell Lee Lodge of Masons of Springfield, where he resided fourteen years after his marriage to Miss Eva M. Avery of this city, Connecticut Valley Consistory, Mt. Tom Golf Club, Holyoke Canoe Club, Lake Sunapee, New Hampshire Yacht Club and the Arkwright Club of New York City.

Besides his wife he leaves two sons, George L. and Robert W., a sister, Mrs. Alice McLean and a brother, William H. Eastwood, all of this city. The funeral was held Friday afternoon with burial in Forestdale Cemetery.

Fred Rollins Ayer

Fred Rollins Ayer, sales manager of the Brightwater Paper Company at Adams, Mass., and descendant of an old New England family, died September 24 at St. Luke's Hospital, New York, at the age of 56. He lived at 11 Park Avenue Terrace, Bronxville, N. Y.

Mr. Ayer was the son of Fred W. Ayer and Marietta Ayer of Bangor, Me., and was graduated from Harvard in 1902. Prior to joining the Brightwater Paper Company in 1922 he had been president for ten years of the Eastern Manufacturing Company, manufacturers of paper, at Bangor.

He belonged to the Racquet and Tennis and the Harvard Clubs of New York, and to the Tennis and Racquet Club of Boston.

Surviving are his widow, Mrs. Letitia May Ayer; two daughters, the Misses Dorothy F. and Frances B. Ayer; three sons, Frederick W., John B. and Winslow B. Ayer, and two sisters, the Misses Helena and Dorothy Clark Ayer.

James F. Kamba

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., September 28, 1936—James F. Kamba, president of the Appleton Engraving Company, Neenah, Wis., whose business was largely with paper mills, died suddenly of heart disease Monday, September 21. Prior to the organization of the company fifteen years ago, he was manager of the engraving department of the carton division of the Marathon Paper Mills Company, Menasha, Wis., then known as the Menasha Printing and Carton Company. Burial was made at Highland Memorial Park at Appleton.

Elmer E. Swope

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., September 28, 1936—Funeral services for Elmer E. Swope, aged 73, former Philadelphian, who died at his home here on Monday, September 21, following an illness of several weeks, were held Friday last, at 2 P.M. Mr. Swope was employed by the Downingtown Paper Box Company for twenty years prior to his death. He was born in Frankford, Philadelphia and was a descendant of one of the first settlers in Frankford.

Surviving him are his wife, who formerly was Miss Julia Harvey of Merion; two daughters, Mrs. Dora Walker of Downingtown, and Mrs. O. W. Schneider, of Port Huron, Mich.; and a grandson, Elmer A. Schneider.

Lewis F. Ogden

[FROM OUR REGULAR CORRESPONDENT]

GLENS FALLS, N. Y., September 28, 1936—Lewis F. Ogden, president of the local Papermakers' Union and prominently employed by Finch, Pruyn & Co., died at his home here last week after a brief illness. He was among the oldest employees, having been with the concern for more than 25 years. A large delegation of persons from neighboring cities attended the funeral services. He was identified with a number of fraternal organizations.

Lynn H. Lake

CHICAGO, Ill., September 28, 1936—Lynn H. Lake, 43 years old, vice-president and general manager of the J. W. Butler Paper Company, died Thursday, September 17, in the Evanston Hospital. He had been an executive of the Butler company for fifteen years.

Mr. Lake, who resided at 1420 Jarvis avenue, is survived by his parents, who live in Paw Paw, Mich.; his wife, Harriet, and one son, Robert, 5 years old.

Walter H. Stuart

Walter H. Stuart, president and chairman of the board of directors of Henry Lindenmeyr & Sons, paper merchants, with offices at 480 Canal Street, New York, died Sunday, September 27, of pneumonia at his home, 1 Plaza Street, Brooklyn. Mr. Stuart, who was born in Brooklyn, would have been 76 years old on October 13.

He had been associated with the Lindenmeyr company since entering its employ as an office boy fifty-eight years ago. A sister, Henrietta Stuart, and a brother, Charles F. Stuart, survive.

John L. Richey Addresses Typothetae

DAYTON, Ohio, September 28, 1936—John L. Richey, executive secretary and counsel of the Central States Paper Trade Association, addressed the members of the Dayton District Typothetae, comprising employing printers in the Miami Valley district, at the annual convention and dinner meeting of that organization at the Van Cleve Hotel last Friday night.

An interesting program was followed, including a musical presentation, and officers for the year were chosen. The attendance from Dayton and surrounding cities was representative, several score employers registering.

Mr. Richey, who is well-known to the local trade and who formerly was identified with the national credit association, came here from Cincinnati, where he is permanently located. He discussed "The Effects of National Legislation Upon the Buyer and Seller Relationship." His general advice to the printers was to "Get your business houses in order."

IMPORTS OF PAPER AND PAPER STOCK

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

CIGARETTE PAPER

Champagne Paper Corp., *Pipestone County*, St. Nazaire, 100 cs.; H. H. Strauss, *Pipestone County*, Bordeaux, 529 cs.; M. Speigel & Sons Co. Inc., *Pr. Hayes*, Genoa, 64 bls.; Champagne Paper Corp., *Paris*, Havre, 400 cs.

WALL PAPER

S. K. Lonegren, *Drottningholm*, Gothenburg, 16 bxs.; S. K. Lonegren, *Scanmail*, Stockholm, 14 cs.; ———, *Queen Mary*, Southampton, 3 cs.; A. W. Fenton, Inc., *American Banker*, London, 1 cs.; W. H. S. Lloyd & Co., *American Banker*, London, 1 cs.; W. H. S. Lloyd & Co., *Laconia*, Liverpool, 2 trusses.

PAPER HANGINGS

W. H. S. Lloyd & Co., *American Banker*, London, 7 bls.

WALL BOARD

Treetex Corp., *Drottningholm*, Gothenburg, 14 cs.; Johaneson Wales & Sparre, Inc., *Drottningholm*, Gothenburg, 36 bdls.

NEWSPRINT

Jay Madden Corp., *Scanmail*, Kotka, 340 rolls.; Walker, Goulard Plehn Co., *Scanmail*, Kotka, 82 bls.; Jay Madden Corp., *St. Louis*, Hamburg, 133 rolls; News Syndicate Co., *International No. 1*, Gatineau, 310 rolls; Perkins Goodwin & Co., *Hansa*, Hamburg, 522 rolls.

PRINTING PAPER

Meadows Wye & Co., *Queen Mary*, Southampton, 1 cs.; Steiner Paper Corp., *Columbus*, Bremen, 9 cs.; Japan Paper Co., *Maasdam*, Rotterdam, 3 cs.; G. E. Stechert, *Paris*, Havre, 12 cs.; Senefelder Co. Inc., *Hansa*, Hamburg, 14 cs.

WRAPPING PAPER

Guaranty Trust Co., *Drottningholm*, Gothenburg, 899 rolls.

FILTER PAPER

H. Reeve Angel & Co. Inc., *American Banker*, London, 9 cs.; C. Schleicher & Schull Co. Inc., *Hansa*, Hamburg, 18 cs.

TISSUE PAPER

M. Snedeker Corp., *American Banker*, London, 1 cs.; ———, *St. Louis*, Hamburg, 3 cs.; ———, *Hansa*, Hamburg, 2 cs.

BARYTA COATED PAPER

Globe Shipping Co., *Columbus*, Bremen, 95 crates, 7 cs.

SURFACE COATED PAPER

Globe Shipping Co., *Bremen*, Bremen, 1 crate; Globe Shipping Co., *Hansa*, Hamburg, 25 cs.; C. Happel, *Hansa*, Hamburg, 22 cs.

METAL COATED PAPER

C. H. Forsman & Co., *Hansa*, Hamburg, 3 cs.; ———, *Hansa*, Hamburg, 24 rolls.

BASIC PAPER

Dingelstedt & Co., *Columbus*, Bremen, 3 cs.; Globe Shipping Co., *Bremen*, Bremen, 1 cs.

BASIC BOARD

———, *Maasdam*, Rotterdam, 10 cs., 3 rolls.

DECALCOMANIAS

Sellers Transportation Co., *Columbus*, Bremen, 6 cs.; Sellers Transportation Co., *Bremen*, Bremen, 13 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., *American Importer*, Liverpool, 85 cs. (duplex).

TRANSFER PICTURES

Rohner Gehrig & Co., *Bremen*, Bremen, 2 cs.

PHOTO PAPER

American Express Co., *Hansa*, Hamburg, 10 cs.

BOWL PAPER

Blauvelt Wiley Paper Manufacturing Co., *Transylvania*, Glasgow, 5 bls.

WRITING PAPER

———, *Hansa*, Hamburg, 1 cs.

COLORED PAPER

———, *Hansa*, Hamburg, 2 cs.

PAPER TUBES

———, *Hansa*, Hamburg, 175 cs.

BOARDS

Miller Paper Co., *Drottningholm*, Gothenburg, 25 bls.

MISCELLANEOUS PAPER

Jay Madden Corp., *Columbus*, Bremen, 13 bbls.; Jay Madden Corp., *St. Louis*, Hamburg, 44 bbls.; Jay Madden Corp., *Hansa*, Hamburg, 49 bbls., 1 cs.; Keuffel & Esser Co., *Hansa*, Hamburg, 32 rolls, 29 cs.; F. L. Kramer, *Drottningholm*, Gothenburg, 140 bls., 88 rolls; ———, *Drottningholm*, Gothenburg, 24 rolls; The Borregaard Co. Inc., *Drottningholm*, Gothenburg, 600 rolls, 479 bls.; Keller Dorian Paper Co., *Paris*, Havre, 6 cs.

RAGS, BAGGING, ETC.

———, *Noto Maru*, Osaka, 55 bls. rags; Amtorg Trading Corp., *Max Hoelz*, Leningrad, 2,260 bls. rags; Irving Trust Co., *Max Hoelz*, Leningrad, 2,349 bls. waste; R. Blank, *Pipestone County*, Havre, 53 bls. fustians; Joe Levy & Son, *Pipestone County*, St. Nazaire, 46 bls. old linen cuttings; ———, *Pipestone County*, Bordeaux, 11 bls. flax waste; ———, *Liberty*, Dundee, 141 bls. paper stock; Castle & Overton, Inc., *Liberty*, Dundee, 112 bls. paper stock; ———, *American Importer*, Manchester, 119 bls. cotton waste; ———, *American Importer*, Manchester, 46 bls. paper stock; Chase National Bank, *American Importer*, Manchester, 61 bls. rags; Manufacturer's Trust Co., *Montreal Maru*, Shanghai, 100 bls. picker waste; First National Bank of Philadelphia, *Montreal Maru*, Shanghai, 100 bls. picker waste; Royal Manufacturing Co., *Montreal Maru*, Shanghai, 150 bls. cotton waste; E. P. Gus, *Montreal Maru*, Shanghai, 50 bls. cotton waste; New England Waste Co., *Montreal Maru*, Shanghai, 100 bls. cotton waste; First National Bank of Philadelphia,

Montreal Maru, Kobe, 100 bls. cotton waste; Philadelphia National Bank, *Montreal Maru,* Kobe, 250 bls. cotton waste; Continental Bank Trust Co., *Montreal Maru,* Kobe, 133 bls. rags; New England Waste Co., *Montreal Maru,* Kobe, 200 bls. cotton waste; C. Tennant Sons Co., *Montreal Maru,* Kobe, 100 bls. cotton waste; Darmstadt, Scott & Courtney, *Drottningholm,* Gothenburg, 11 bls. rags; Glaser Jaffe Woolstock Co. Inc., *Laconia,* Liverpool, 20 bls. rags; E. P. Gus, *Tokai Maru,* Osaka, 100 bls. cotton waste; F. Stern, *Maasdam,* Rotterdam, 61 bls. rags; ———, *Maasdam,* Rotterdam, 45 bls. bagging; Amtorg Trading Corp., *Scanmail,* Leningrad, 427 bls. rags; Castle & Overton, Inc., *Southern Cross,* Buenos Ayres, 349 bls. rags; Continental Bank Trust Co., *Southern Cross,* Buenos Ayres, 37 bls. new cuttings, 38 bls. rags; Guaranty Trust Co., *Vulcania,* Trieste, 76 bls. rags; ———, *Konigstein,* Antwerp, 224 bls. rags; ———, *Pr. Hayes,* Bombay, 1,152 bls. cotton waste; Castle & Overton, Inc., *Pr. Hayes,* Bombay, 36 bls. new cuttings; Banca Com'l. Italiana Trust Co., *St. Louis,* Hamburg, 117 bls. rags; Chase National Bank, *St. Louis,* Hamburg, 116 bls. rags; ———, *St. Louis,* Hamburg, 441 bls. cotton waste; ———, *Exhibitor,* Piraeus, 255 bls. rags; E. J. Keller Co. Inc., *Black Hawk,* ———, 121 bls. bagging, 184 bls. paper stock; E. J. Keller Co. Inc., *Pr. Roosevelt,* ———, 230 bls. paper stock.

GLUE STOCK, ETC.

Eastman Kodak Co., *Laconia,* Liverpool, 317 bags hide glue; ———, *Columbus,* Bremen, 227 bags glue; ———, *Vulcania,* Trieste, 100 bags bone glue; ———, *Konigstein,* Antwerp, 114 bls., 25 cs. bone glue.

CASEIN

American British Chemical Supplies, *Southern Cross,* Buenos Ayres, 834 bags; ———, *Pipestone County,* Bordeaux, 265 bags; National City Bank, *Paris,* Havre, 550 bags; ———, *Hansa,* Hamburg, 70 bags.

WOOD PULP

J. Andersen & Co., *Drottningholm,* Gothenburg, 250 bls. sulphite; Perkins Goodwin & Co., *Drottningholm,* Gothenburg, 1,397 bls. kraft pulp; Price & Pierce, Ltd., *Drottningholm,* Gothenburg, 250 bls. unbleached sulphite; A. Giese & Son, *Maasdam,* Rotterdam, 50 bls. wood pulp; Lagerloef Trading Corp., *Scanmail,* Kotka, 260 bls. sulphate, 52 tons; Lagerloef Trading Corp., *Scanmail,* Kotka, 350 bls. sulphite, 59 tons; ———, *Vulcania,* Trieste, 100 bls. wood pulp; Castle & Overton, Inc., *Hansa,* Hamburg, 250 bls. wood pulp, 50 tons.

WOOD PULP BOARDS

Jay Madden Corp., *Scanmail,* Kotka, 17 rolls; H. Fuchs & Son, *Drottningholm,* Gothenburg, 89 crates.

WOOD PULP SHEETS

———, *Hansa,* Hamburg, 30 cases.

NEWARK IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

H. G. Craig Co., *Newscarrier,* Donnacona, 343 rolls newsprint; ———, *Donpaco,* Donnacona, 315 rolls newsprint.

ALBANY IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Bulkley Dunton & Co., *Sandhamn,* ———, 2,000 bls. wood pulp; Price & Pierce, Ltd., *Ivar,* ———, 500 bls. bleached sulphite; Price & Pierce, Ltd., *Ivar,* ———, 150 bls. unbleached sulphite.

BOSTON IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

———, *American Importer,* Manchester, 44 bls. rags, 106 bls. cotton waste; ———, *American Importer,* Manchester, 123 bls. rags, 503 bags hide cuttings; ———, *American Importer,* Liverpool, 88 bls. paper stock; Brown Bros. Harriman & Co., *American Importer,* Liverpool, 34 bls. cotton waste; C. H. Powell, *Maasdam,* Rotterdam, 230 bls. cotton waste; ———, *Maasdam,* Rotterdam, 17 bls. rags; ———, *Maasdam,* Rotterdam, 44 bls. wood pulp boards; International Purchasing Co., *Maasdam,* Rotterdam, 61 coils old rope; ———, *Maasdam,* Rotterdam, 66 rolls straw board; Castle & Overton, Inc., *Maasdam,* Rotterdam, 155 bls. wood pulp; ———, *Vulcania,* Trieste, 100 bags hide glue; ———, *Pr. Hayes,* Bombay, 166 bags glue stock; Pagel Horton & Co. Inc., *Bessa,* Sweden, 3,335 bls. wood pulp; Gottesman & Co. Inc., *Bessa,* Sweden, 690 bls. wood pulp; Bulkley Dunton & Co., *Tolken,* ———, 250 bls. wood pulp; Bulkley Dunton & Co., *Sandhamn,* ———, 3,900 bls. wood pulp; Price & Pierce, Ltd., *Bessa,* ———, 600 bls. bleached sulphite; Price & Pierce, Ltd., *Bessa,* ———, 450 bls. unbleached sulphite.

NEW LONDON IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Price & Pierce, Ltd., *Bessa,* ———, 1,800 bls. unbleached sulphite.

PHILADELPHIA IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Castle & Overton, Inc., *Pipestone County,* Havre, 123 bls. new cuttings, 320 bls. rags; R. Blank, *Pipestone County,* Havre, 501 bls. rags; Castle & Overton, Inc., *Pipestone County,* St. Nazaire, 114 bls. rags; Congoleum Nairn Co., *Pipestone County,* Bordeaux, 559 bls. rags; Darmstadt Scott & Courtney, *Pipestone County,* Bordeaux, 58 bls. cotton waste; E. J. Keller Co. Inc., *Pipestone County,* ———, 342 bls. rags; Philadelphia National Bank, *Liberty,* Hamburg, 22 bls. rags; ———, *Liberty,* Hamburg, 110 rolls wrapping paper; ———, *Liberty,* Dundee, 112 bls. paper stock; O. Smith & Sons, *Montreal Maru,* Kobe, 100 bls. picker waste; Royal Manufacturing Co., *Montreal Maru,* Shanghai, 50 bls. cotton waste; American Cotton Products Co., *Montreal Maru,* Shanghai, 150 bls. cotton waste; ———, *Montreal Maru,* Kobe, 275 bls. cotton waste; Chase National Bank, *Montreal Maru,* Kobe, 20 bls. rags; Philadelphia National Bank, *Tokai Maru,* Kobe, 85 bls. rags; J. W. Hampton Jr. Co., *Scanmail,* Kotka, 492 rolls newsprint; Lagerloef Trading Co., *Scanmail,* Kotka, 50 bls. sulphate, 10 tons; Paper Manufacturer's Co. Inc., *Scanmail,* Kotka, 133 bls. newsprint; Castle & Overton, Inc., *Scanmail,* Kotka, 1,276 bls. wood pulp, 253 tons; Bulkley Dunton & Co., *Scanmail,* ———, 300 bls. sulphite, 50 tons; Gottesman & Co. Inc., *Scanmail,* Stockholm, 450 bls. sulphite, 75 tons.

BALTIMORE IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Congoleum Nairn Co., *Pipestone County,* Havre, 231 bls. rags; Congoleum Nairn Co., *Pipestone County,* St. Nazaire, 109 bls. rags; Johaneson Wales & Sparre, Inc., *Scanmail,* Kotka, 300 bls. mechanical pulp, 50 tons; Gottesman & Co. Inc., *Scanmail,* Kotka, 250 bls. dry pulp, 50 tons; Johaneson Wales & Sparre, Inc., *Scanmail,* Helsingfors, 875 bls. mechanical pulp, 177 tons.

NORFOLK IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

N. Y. Trust Co., *Pipestone County,* Havre, 205 bls. bagging.

NEW ORLEANS IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Loumar Textile By-Products Co., *Montreal Maru,* Kobe, 200 bls. bagging; Parsons & Whittemore, Inc., *Hagen,* ———, 500 bls. wood pulp; Gottesman & Co. Inc., *Tabor,* Finland, 864 bls. wood pulp.

(Continued on page 47)

New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, September 30, 1936.

Conditions in the local paper market are fairly satisfactory. The volume of sales of practically all grades of paper continues higher than last year and the outlook for the closing months of the year is decidedly promising. Sales forces of the leading paper houses express optimism in the future trend. The price situation remains unchanged.

The newsprint paper market is exhibiting a stronger undertone. According to the index of Printer's Ink, newspaper advertising in August showed a gain of 8 per cent over the corresponding month last year, and this improvement should continue until the end of the year, at least. Prices are holding to schedule.

Demand for the various grades of fine paper is fairly persistent and book, cover, bond and ledger papers are moving in good volume for the season. Prices remain unchanged. Tissues are in excellent request. The coarse paper market is displaying strength. Paper board supplies are going forward at a steady pace. Quotations are fairly steady.

Mechanical Pulp

The position of the ground wood pulp market is little changed, although manufacturing operations are becoming more active. Demand for both domestic and imported mechanical pulp is slightly better than of late. With stocks at the pulp mills not excessive the statistical position of the industry is sound. Prices are holding to formerly quoted levels.

Chemical Pulp

Business in the chemical pulp market is brisk. Bleached sulphite and kraft pulps continue firm. Bleachable grades of unbleached sulphite are attracting more interest from the paper mills and prices are stronger. Bleached soda pulp is steady and unchanged. The outlook for this industry is encouraging from the producer's standpoint.

Old Rope and Bagging

The old rope market is showing signs of awakening. Demand for both domestic and imported old manila rope is gradually improving. Small mixed rope is fairly active. Old rope quotations are firmer. The bagging market is displaying greater strength. Both scrap and gunny bagging are in good request. The price situation is firmer.

Rags

Some improvement transpired in the domestic rag market. New and old cotton rags are in better demand. No. 1 white shirt cuttings are in good request for domestic and export account and there have been some good sized orders shipped of late. Roofing grades are in seasonal request. The imported rag market is rather quiet, due to high prices abroad.

Waste Paper

The paper stock market is steadier. Board mill interest in the lower grades is more in evidence and quotations on strictly folded news and No. 1 mixed paper are steadier. Demand for the higher grades of waste paper is well sustained, especially for white envelope cuttings and hard and soft white shavings. Book stock is moving more freely.

Twine

Steadiness prevails in the local twine market. Demand for the various varieties is fairly lively and the outlook for the next few months is bright. Prices are holding to formerly quoted levels despite the usual keen competition for desirable orders.

Brown Co. Secures Large Pulp Contract

The Brown Company, Berlin, N. H., has secured a large contract for pulp of different types from a company in Japan, totaling close to 100,000 tons, in all, and will proceed with production at once. It is expected to advance operating schedule at local mills, with additions to working forces in different departments. This is one of the largest pulp orders ever received by the company. Henry P. Carruth is general manager.

To Furnish Roll Coverings For Crosset

The American Wringer Company, Woonsocket, R. I., reports the contract for the Tensilastic Rubber Covering of press rolls for the new Minton Drier machine being built for the Soundview Pulp Company of Everett, Wash.

IMPORTS OF PAPER AND PAPER STOCK

(Continued from page 46)

HOUSTON IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Loumar Textile By-Products Co., *Montreal Maru*, Kobe, 800 bls. bagging.

SOUTH HAVEN IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Price & Pierce, Ltd., *Reidun*, ———, 1,500 bls. unbleached sulphite.

LOS ANGELES IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

———, *Tokai Maru*, Shanghai, 400 bls. rags.

MONTREAL IMPORTS

WEEK ENDING SEPTEMBER 26, 1936

Gottesman & Co. Inc., *Idefjord*, Sweden, 28,300 bls. wood pulp; Pagel Horton & Co. Inc., *Tyrifjord*, Sweden, 16,809 bls. wood pulp.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, September 30, 1936.

BLANC FIXE.—Business in the blanc fixe market is fairly active. The contract movement is normal for the season. Prices are steady. The pulp is quoted at $42.50 to $45 per ton, in bulk; while the powder is selling at 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER—The position of the bleaching powder market is practically unchanged. Demand for this product is slightly better. Prices are generally holding to schedule. Bleaching powder is quoted at $2 to $2.25 per 100 pounds, in drums, at works.

CASEIN—The casein market continues firm. Domestic standard ground is quoted at 17½ and finely ground at 18 cents; while French and Argentine standard ground are selling at 17 and finely ground at 17½ cents per pound, all in bags, car lot quantities.

CAUSTIC SODA—Steadiness prevails in the caustic soda market. Contract shipments are moving freely. Prices remain unchanged. Solid caustic soda is quoted at $2.55 to $2.60; while the flake and ground are selling at $2.95 to $3 per 100 pounds, in drums, at works.

CHINA CLAY—The china clay market is displaying strength. Demand from the paper mills is brisk. Prices are firm. Imported china clay is quoted at $12.50 to $21 per ton, ship side; while domestic paper making clay is selling at $6.50 to $12 per ton, at mine.

CHLORINE—Conditions in the chlorine market are satisfactory. Supplies are moving into consumption in good volume. Prices are holding to formerly quoted levels without difficulty. Chlorine is selling at $2.15 to $2.55 per 100 pounds, in tank cars, at works.

ROSIN—The rosin market continues firm. Paper making gum rosin is quoted at $6.02½ and wood rosin at $6.05 per 280 pounds, gross weight, in barrels, at Savannah. Seventy per cent rosin size is selling at $3.06 per 100 pounds, in tank cars, at works.

SALT CAKE—Paper mill demand for salt cake is persistent. The contract movement is well up to average. Salt cake is still quoted at $12 to $13; chrome salt cake at $11 to $12 per ton, at works; while imported salt cake is selling at $12 to $13 per ton, ship side.

SODA ASH—The soda ash market is exhibiting a strong undertone. Contract shipments are going forward at a steady pace. Prices are firm. Quotations on soda ash, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.05; in bags, $1.20; and in barrels, $1.50.

STARCH—Trading in the starch market is moderately active. The contract movement is normal for the time of year. Prices remain unchanged. Special paper making starch is quoted at $4 per 100 pounds, in bags; and at $4.27 per 100 pounds, in barrels, at works.

SULPHATE OF ALUMINA—Demand for sulphate of alumina is fairly heavy. Contract shipments are moving freely. Prices are holding to schedule. Commercial grades are quoted at $1.35 to $1.60; while iron free is selling at $2 to $2.25 per 100 pounds, in bags, at works.

SULPHUR—The sulphur market is steady. Yearly contracts are quoted at $18 per ton, in bulk, on orders of 1,000 tons, or over, and $20 on smaller quantities. On spot and nearby car loads the quotation is $21 per ton. All quotations are in car lots, at works.

TALC—No radical changes transpired in the talc market. Demand from the paper mills is routine. Prices remain steady and unchanged. Domestic talc is quoted at $16 to $18 per ton, at eastern mines; while imported talc is selling at $23 to $30 per ton, on dock.

Market Quotations

Paper

Rag Content Bond & Ledgers—Delivered Zone 1

	Bonds	Ledgers
100% Rag Ext. No. 1	.36	.37
100% Rag	.28	.29
75% Rag	.21	.22
65% Rag	.18	.19
50% Rag	.15	.16
25% Rag	.12½	.13½

Sulphite Bond & Ledgers—Delivered Zone 1

	Bonds	Ledgers
No. 1 Sulphite	7.50 @	8.50
No. 2 Sulphite	6.50 @	7.50
No. 3 Sulphite	6.00	7.00
No. 4 Sulphite	5.50	6.50
Book, B Grade, Cased		
S. & S. C.	5.85 @	6.60
S. & S. C. Litho.	6.10 @	6.85
M. F.	5.60 @	6.35
No. 4 Grade		
Coated and Enamel	6.80 @	7.65
Coated Litho	6.80 @	7.65

Tissues—Per Ream—		
White No. 1	.82½ @	—
White No. 1 M. G.	.77½ @	—
White No. 1½	.62½ @	—
White No. 2	.60 @	—
Anti-Tarnish M. G.	.67½ @	—
Colored	.80 @	—
Kraft	.67½ @	—
Manila	.60 @	—
Unbleached Toilet	2.60 @	3.30
Bleached Toilet	3.94 @	5.26
Paper Towels—		
Unbleached	2.10 @	3.35
Bleached	3.30 @	3.70
Manila—		
No. 1 Jute	9.00 @	9.25
No. 2 Jute	7.75 @	8.50
No. 1 Wood	4.00 @	5.25
No. 2 Wood	3.50 @	4.00
Fibre Papers—		
No. 1 Fibre	4.25 @	5.50
No. 2 Fibre	4.00 @	4.75

(Delivered New York)

News, per ton—		
Roll, contract	41.00 @	—
Sheets	46.00 @	—
Kraft—		
No. 1 Northern	4.25 @	4.75
Standard	4.00 @	4.12½
Southern	3.87½ @	—
Glazed	4.37½ @	—
Striped	4.62½ @	—
Boards—per ton—		
News	30.00 @	32.50
Chip	32.50 @	35.00
Sgl. Mla. Ll. Chip	45.00 @	47.50
Jute Lined Chip	47.50 @	50.00
Kraft Liners	62.50 @	65.00
White Pat. Coated	57.50 @	60.00
Binders Boards	67.00 @	75.00

Mechanical Pulp

(On Dock, Atlantic Ports)

No. 1 Imported—		
Moist	24.00 @	25.00
Dry	24.00 @	25.00
(Delivered)		
No. 1 Domestic and Canadian	27.00 @	28.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—		
Division 1	2.70 @	3.30
Division 2	2.65 @	2.75
Division 3	2.60 @	2.70
Prime Qualities—		
Class 1. All Prime Easy Bleaching	2.10 @	2.15
Other Than Easy Bleaching—		
Class 2. Higher than Standard	2.05 @	2.10
Class 3 Standard	2.00 @	2.05
Class 4. Lower than Standard	1.95 @	2.00

(On Dock, Atlantic Ports)

Kraft Bleached	3.00 @	3.25
Kraft Light & Strong	2.10 @	2.20
Kraft No. 1	1.85 @	2.10
Kraft No. 2	1.70 @	1.85
(F. o. b. Pulp Mill)		
Kraft Domestic	1.80 @	2.00
(Delivered)		
Soda Bleached	2.60 @	—

* Add 60 Cents per short ton, dock charges, for Albany; $2.00 for Lake Ports East and $3.00 for Lake Ports West of Mackinac Straits.

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—		
New White, No. 1	7.75 @	8.00
Silesias No. 1	5.50 @	5.75
New Unbleached	8.25 @	8.50
New Soft Blacks	3.75 @	4.00
Blue Overall	6.75 @	7.00
Fancy	3.00 @	3.25
Washables	2.25 @	2.50
Mixed Khaki Cuttings	3.50 @	3.75
O. D. Khaki Cuttings	4.25 @	4.50

Old Rags

White, No. 1—		
Repacked	3.25 @	3.50
Miscellaneous	2.75 @	3.00
White, No. 2—		
Repacked	2.25 @	2.50
Miscellaneous	1.75 @	2.00
Thirds and Blues—		
Repacked	2.00 @	2.25
Miscellaneous	1.90 @	2.00
Roofing Rags—		
No. 1	1.75 @	1.80
No. 2	1.15 @	1.25
No. 3 (bagging)	1.10 @	1.15
No. 4	1.10 @	1.15
No. 5A	.80 @	.90

Foreign Rags

New Rags

New Dark Cuttings	2.25 @	2.50
New Mixed Cuttings	2.00 @	2.25
New Light Silesias	5.50 @	5.75
Light Flannelettes	5.50 @	5.75
New White Cuttings	7.00 @	7.50
New Light Oxfords	4.00 @	4.50
New Light Prints	3.00 @	3.25

Old Rags

No. 1 White Linens	7.50 @	8.00
No. 2 White Linens	6.50 @	7.00
No. 3 White Linens	4.50 @	5.00
No. 4 White Linens	2.25 @	2.50
No. 1 White Cotton	4.25 @	4.75
No. 2 White Cotton	3.25 @	3.75
No. 3 White Cotton	2.50 @	2.75
No. 4 White Cotton	1.90 @	2.15
Extra Light Prints	2.00 @	2.25
Ord. Light Prints	1.75 @	1.85
Med. Light Prints	1.55 @	1.65
Dutch Blue Cottons	2.25 @	2.50
French Blue Linens	3.50 @	4.00
German Blue Linens	2.50 @	2.75
German Blue Cottons	2.00 @	2.25
Checks and Blues	2.00 @	2.25
Linsey Garments	2.15 @	2.25
Dark Cottons	1.90 @	2.10
Old Shopperies	1.75 @	2.00
New Shopperies	1.75 @	2.00
French Blues	2.25 @	2.50

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—		
Foreign	2.10 @	2.15
Domestic	1.75 @	1.85
Wool Tares, light	1.50 @	1.75
Wool Tares, heavy	1.85 @	2.05
Bright Bagging	1.70 @	1.75
Manila Rope—		
Foreign	2.50 @	2.95
Domestic	2.75 @	3.00
Jute Strings	2.00 @	2.25
Sisal Strings	2.00 @	2.10
Mixed Strings	.80 @	1.00

Old Waste Papers

(F. o. b. New York)

Shavings—		
White Envelope Cuttings	2.55 @	2.65
Ordinary Hard White No. 1	2.25 @	2.35
Hard White No. 2	2.10 @	2.20
Soft White No. 1	1.95 @	2.05
Flat Stock—		
Stitchless	.65 @	.75
Over issue Mag	.65 @	.75
Solid Flat Book	.55 @	.60
Crumpled No. 1	.35 @	.40
Ledger Stock	.85 @	.90
New B. B. Chips	.30 @	.35
Manilas—		
New Env. Cut	1.75 @	1.85
New Cuttings	1.35 @	1.45
Old Kraft Machine—		
Compressed bales	1.15 @	1.30
News—		
No. 1 White News	1.15 @	1.25
Strictly Overissue	.50 @	.60
Strictly Folded	.40 @	.45
No. 1 Mixed Paper	.35 @	.40

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